

“SUN VERSUS SHADE GARDENING: HOURS OF SUNLIGHT DEFINED, USDA ZONES AND WHAT THEY MEAN, WHAT TO PLANT IN SUN, WHAT GROWS BEST IN SHADE, AND PLANT SUGGESTIONS.”

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HOURS OF SUNLIGHT DEFINED, I.E., SUN AND SHADE

Whatever type of garden you want to have, be it flowers or vegetable, you first need to establish what type of sun/shade you have. So here are some descriptions of the sunlight requirements you will see on plant tags and in plant descriptions.

- **FULL SUN:** These are plants that require **a minimum of 6 hours of direct sunlight a day.**
- **FULL SHADE:** This is basically shade that lasts all day long. Very little direct sunlight hits the plant at any time of the day. Typically, **full shade is less than 3 hours of sun a day.** This type of shade is often found under large trees or on the north side of structures.
- **PARTIAL SHADE** “Partial sun” or “partial shade” means that **the plant gets 3-6 hours of direct sun per day.** If the tag says partial shade, try to give the plant morning sun as this is the gentlest.
- **DAPPLED SHADE** – this is the area where the **sunlight is filtered through a tree’s canopy.**
- So, check you plant tag and make sure it is planted in the spot best suited for it.

USDA ZONES AND WHAT THEY MEAN

Let’s start with how those zones were determined. USDA recorded the lowest temperature each winter for 30 years and found the average lowest temperature for an area. The zones are arranged from north to south, with the numbers from low to high. To illustrate, looking at continental United States, Maine, is in zone 3. The southern part of Florida is in Zone 11.

Each zone consists of 10 degrees Fahrenheit and it is 10 degrees Fahrenheit warmer or colder in an average winter than the zone it is adjacent to. The lower the zone number, the colder the winter.

In addition, each zone has an “A” and a “B”. these are from north to south as well. Rutherford County is in zone 7A. Zone 7 means we can expect average winter lows of 10 to zero degrees. The “A” means our winter lows more closely resemble zone 6 than zone 8.

What is important about the zones for gardeners is to remember this is an **average**. Some years or temperatures may barely reach freezing, while in other years we can expect below zero temperatures. If you have plants that are rated as hardy in zone 7, you might need to protect them some winters.

GETTING READY TO PLANT

Garden plants can come in all shapes and sizes and have many different colored blooms and foliage. There are several things that you should look at when planning your shade or sun garden.

1. Should you use annuals or perennials? Perhaps a mixture? We will talk about that in a while.
2. Bloom time. When do you want to have flowers, and for how long? Bloom time can be seasonal or even day or nighttime.
3. Colors – do you want a variety or just a certain color?
4. Do you want cut flowers? Do you want fragrance?
5. Is your garden big enough for several layers so that tall plants in back and short border plants are a consideration?
6. Do you want plants to conceal an eyesore, perhaps an air conditioning unit?
7. What about using pots? Would you prefer to put all your plants in containers, or would you like to mix some containers with your in-ground plants?
8. Do you want to attract butterflies and other pollinators?
9. Does your garden need to be deer resistant?
10. Water requirements? Does the area have an easily available water source?
11. If you have moved to a new home, we suggest waiting a year to see what pops up in the garden, and observe where your sun and shade areas are located.
12. Finally, consider how hard you want to work to be able to enjoy your garden.

A lot of the answers to these questions are personal choice, but we are going to try to help you with a look at some favorites among the annuals and perennials for sun and shade. First, let's look at what exactly makes a plant an annual or a perennial.

ANNUALS VERSUS PERENNIALS

ANNUALS	PERENNIALS
An annual has its entire life in one year.	Typically, cold-hardy plants which return each spring
It grows from a seed; it produces seeds to ensure the next generation	Grows from and stores food in roots, bulbs, rhizomes for future growth.
Offer spectacular displays of flowers or blooms. Are used for fast color.	Most bloom once a year, the blooms may last a week or an entire season (spring, summer, or fall) or longer. There are new varieties that re-bloom.
They fill the gap between early and late perennials. Will reward you with lush, flower-filled beds until they go to seed.	Can live a long time, typically 3-5 years. Will need to be pruned and divided for longevity.
Must be replanted each year. Plants need to be deadheaded to encourage more blooms.	Remove spent blooms to enjoy the beauty of the foliage and to avoid the plant looking "straggly"
Are generally less expensive than perennials. Allows you to experiment and change your mind at a relatively low cost. Some will re-seed themselves so you might think them perennials.	More expensive but require minimal effort from you once they are planted. A good long-term investment because they return year after year.
When they receive proper sun, most thrive with fertilizer and water	Most perennials require less water once established which is advantageous for those in drought prone areas.
Good for pollinators.	Planting native perennials offers additional benefits of creating a welcoming habitat for pollinators and local wildlife.

NOW LET'S MOVE ON TO SOME OF OUR FAVORITE PLANT CHOICES FOR SUN OR SHADE IN YOUR GARDEN

ANNUALS FOR SUN

There are countless annuals that thrive in full sun. I am going to tell you about ones that are easy to grow. These plants will make even a novice gardener appear to have the preverbal “Green Thumb”.

Zinnias: These are one of the most cost-effective flowers you can grow. A single packet of seeds can produce colorful blooms that last from summer until frost. Zinnias come in a wide range of hues. They can be a single color, or some combination. The plants can be tall or short enough for borders. They attract butterflies, bees and even hummingbirds. They also make excellent cut flowers. They do well in containers. They love sunshine and if you keep them watered, they will thrive in our hot summer. Also, they tend to reseed themselves. Keep them watered and they require some deadheading.

Celosia or Cockscomb: If we lived in Zone 10 or 11, celosia would be a perennial, growing year-round. In our Zone 7, we grow it as an annual. This summer-heat lover is one of my favorites. There are two popular varieties. My favorite is in the “Christa” group and has rounded, fissured heads – that rather resemble a brain - and can be up to a foot across. Although it comes in several colors, the showiest is blood red. The other group is “Plumosa”. Its flowers resemble plumes of red, pink, golden and white. As the plumes fade, they will benefit from deadheading. Varieties grow from six inches to more than 2 feet tall and spread up to 18 inches. They grow from seed and will reseed from year to year. They love summer heat and when other plants are fading, celosia is still going strong.

Moss Rose: Think of this annual as a cross between a rose and a cactus. The flowers are compact, inch-wide, rose-like clusters of red, pink, magenta, yellow and white that open only when summer sun is directly on them. The foliage has spiky, succulent-type leaves that does really well in hot, dry conditions. It can be easily grown from seed and will reseed itself. It can grow in containers, in a rock garden, or between pavers on a hot driveway. With a little water, this is truly a “no work” plant.

Melampodium: Another reseeding annual is melampodium. It is one of the top-ten summer flowering annuals. Unfortunately, this lovely, heat loving plant doesn’t have a common name. The flowers are butter-yellow daisies which bloom in profusion from

spring to frost. The plants mound from two to three feet and have deep green foliage. It requires heat to grow. And all those flowers do not require deadheading. Again, this beauty really requires no effort from you.

Cosmos: These are about as low maintenance as you can get. Just throw some seeds into your prepared soil, and they will produce daisy-like blooms with little care from you. They can grow up to 4 feet in height with a spread of as much as 3 feet. They can be top heavy. Grow them in a bunch, so they support each other. The blooms can be red, pink, white or yellow and butterflies love them. They will reseed. New varieties are being developed. There is a buttery-yellow cosmos, one that is deep red and another that has the shape of a tubular seashell.

Petunias: We all know these flat or ruffled trumpets that can be white, pink, red, purple, blue, or rose, with or without stripes. Pollinators love them, they are beautiful in containers or wherever you need a show of color. They grow in a variety of soil conditions and the petunia is one of the most popular annuals.

I was not going to include petunias because they are not as easy to grow as the others. But, because of their popularity I have included them. Petunias do better with cool weather than with our extreme heat. To have them show their best, feed and water regularly, deadhead and when the plant looks scraggly, pinch off some ends. If you can, give them some shade, particularly in the afternoon. “Purple Wave” is a hybrid that can take the summer heat. Most petunias now are hybrids and will not grow if you save seeds.

Some other annuals to consider for sun: Sunflowers, Marigolds, California Poppy, Snapdragon, Mexican Sunflower

ANNUALS FOR SHADE

Now let’s take a look at a few of the annuals that do well in shade. As is typical with shade loving plants, the beauty of most shade loving annuals lies in their foliage.

CALADIUMS – An annual here but perennial in other zones but if you dig them up after leaf dieback and overwinter inside, you can replant them when the warmer weather arrives. The foliage is large and arrow shaped. Caladiums are stunning when planted in

masses so that you can get the full effect of their color. The leaves come in shades of green, white, reds, bronze, silver, and pinks. Plant them straight into the ground or even in pots for a taller look. Some of the newer varieties can tolerate some sun. They need rich soil, which is why I prefer pots, high humidity, and heat, making them the perfect shade tolerant plant for our summers.

COLEUS - Again, a perennial in warmer zones. The flowers of the coleus are attractive, but it is a stunner when it comes to foliage. Sizes can range from giant with leaves 3-6" long, or dwarf with leaves 1-1.5" long. Colors include green, chartreuse, yellow, orange, salmon, reds, purple, and brown. The more red pigment there is, the more sun the plant can tolerate, but most perform best in strong indirect light or light shade. The new Sun Coleus thrives in sunlight. With it being an annual here, you will have to plant from seed next year or from cuttings. Start seeds indoors and plant outside when the weather is warm.

IMPATIENS - will reward you with bright flowers until the frost arrives. There are hundreds of varieties and most will bloom all summer. Do watch out for powdery mildew, being careful to water only in the mornings. A more mildew resistant variety is the New Guinea hybrid. Impatiens make great border plants and also shine in a hanging basket.

BEGONIAS - will give you both delicate, attractive flowers and textured, beautiful foliage. This is another annual that can be easily propagated from its leaves, stem, or rhizome cutting if you want to save a favorite for next year. They do best when planted in containers in filtered shade. If they are in the ground, they do best in rich, fast-draining soil.

If you happen to have Hardy BEGONIAS which can withstand our winters, make sure to mulch around it to protect the roots after the plant dies back.

As mentioned before, partial shade annuals also include, (as Linda talked about,) PETUNIAS. Partial shade is a great place for them when our summer temperatures rise.

PERENNIALS FOR SUN

Purple Coneflower: This is our state flower. It is arguably the hardiest native perennial of all. This strong perennial, very suited to our climate. It will come back year after year and adds awesome color to your garden. Butterflies and other pollinators love it. Don't cut the heads back in winter. Leave the seeds for the birds and for winter interest. The native coneflower is purplish pink. There are wonderful new colors being developed. Keep in mind, they may not live as long as the native coneflower. Of all the plants mentioned this one is a "must-grow".

Care of Purple coneflowers: It thrives in full sun and part shade. It is not fussy about soil, as long as it drains well. Low fertility is not required, but too much nitrogen at once can cause lanky growth and root problems. Water only when it is very dry.

Daylily: The Daylily is considered to be America's favorite perennial. Everyone is familiar with "Stella d'Oro", a yellow, miniature daylily that appears in most landscaping, and on lists of overused plants. The daylily gets its name because each flower will last only one day. Most flower in the morning and fade by late afternoon. The blooms are seemingly endless and daylilies continue to flower all summer. They grow up to 3 feet tall and the spread can be up to 3 feet as well. The flowers range from 2 to 6 inches in size and come in every color except pure white and pure blue. The foliage is also notable as an ornamental grass.

Daylilies are tough. They survive in a range of climate conditions and soil types, they are drought resistant, and have no major insect pests. Those you interested in shade plants, note daylilies do well in part shade. They flower best planted with the crown raised just a bit, so it stays dry during rainy seasons. Soil should be amended with organic matter to a shovel's depth, and they appreciate a light feeding at the beginning of the growth cycle. Note – too much water and fertilizer set the plant up for diseases.

Ice Plant: This is currently my favorite perennial. It is a lovely flower to fill a dry, troublesome area and, like all the plants I'm telling you about, it is easy to grow. The plant is a succulent, perennial, ground cover with daisy-like flowers. The purple ice plant is the most common, but there are varieties in yellow, pink with a white center, white and a lovely deep red. It is cold hardy, but that is not where it got its name. It is so named because the flowers and leaves seem to shimmer as if it were covered in frost.

Ice Plants thrive in zones 5-9 and will bloom most of the summer and fall. The plants grow to be 3-6 inches tall with a spread of 2-4 feet. The plants prefer full sun but

can tolerate some light shade. They are succulents and do not tolerate wet soil. They do well in poor soils. Once established they require little maintenance. They need very little watering – they thrive in drought-like conditions. They need little fertilization. They are easily propagated by division, cuttings, and seeds. If you choose to plant seeds, simply scatter them on the soil as they need light to germinate. Just put Ice Plant in the soil and watch it grow.

Some precautions – the ice plant is evergreen and for this reason makes a year-round ground cover. There is often some dieback of foliage in the winter. Also, in areas with less rainfall than we have in Middle Tennessee, the ice plant can become invasive

Yarrow: This sun-loving perennial is among a large group introduced by Europeans and known as “naturalized wildflowers.” The flower is compound, a large flat compact cluster of small flowers up to four or five inches across. Stems can be 2, 3 or more feet tall. The most common variety is white, but yarrow has been cultivated to include yellow, golden, pink, cerise and red. They are wonderful cut flowers and can be dried as well.

Yarrow can border on being invasive. Plant in well-drained soil with some organic matter mixed in. Water only during droughts and then deeply, but only occasionally. Excess rain and high humidity can lead to crown rot.

Russian Sage: In 1995 Russian Sage was named perennial plant of the year. It is drought tolerant, has hardly any disease or insect problems, and attracts pollinators. It can do well in a variety of soil types, so you don’t have to have perfect conditions to look good. The tiny, purple blooms are all over from tip to base, and it makes a statement from midsummer to fall. It needs full sun, thrives in zones 4-9, will grow a 2-1/2 to 5 feet stalk and spread from 2-4 feet. When it grows tall, it tends to flop. Put it in the back of the flower bed where it can help support the other plants.

Other full-sun perennials to consider: Black-eyed Susan, Asters for fall flowers, Shasta daisies and Mexican Petunias.

PERENNIALS FOR SHADE

Let me first talk about some spring bloomers that are definitely not considered shade plants but can certainly work. These are daffodils and tulips. Remember that when these present us with their beautiful blooms, our trees are not leafed out as yet so they should get enough sun to put on their show and then disappear when the trees leaf out and other plants begin to appear. I would encourage you to give it a try. It didn't work for me because I also have pine trees which continue to give shade throughout the winter months. Daffodils will naturalize here and there a few varieties of tulips that do also.

Ferns: e.g., Autumn Brilliance, Christmas Fern which are cold hardy, and Japanese Painted Fern

Hostas – most popular of shade perennials with hundreds of varieties available. Colors range from dark greens, blues, to whites, or yellows. Leaves can be solid, variegated, smooth, ruffled, cupped, or arched. They can range in size from giants over 4 feet tall, to miniatures which are just a few inches in height. Hostas do flower at various times beginning in late spring. The blooms are lily like and range in color from purple to white. An added plus is that hostas do well in pots, so go ahead and plant in pots for height, or create fairy gardens with miniatures.

Heuchera or Coral Bells is a North American native and is cold hardy here in Tennessee. Heuchera has been crossed with Tiarella or Foam Flower to create Heucherella. Foliage of these plants can be purples, green, amber, brown, reds, oranges, or a combination of colors.

Epimedium has beautiful heart shaped leaves that provide color all year round. Its tiny springtime flowers are pale yellow.

Toad Lily or Tricyrtis has small lily like flowers which bloom in the summer. Flowers are tiny so plant in masses so they can be visible.

Polygonatum or Solomon's Seal is another herbaceous perennial with interesting foliage growing 18-24" on graceful, arching unbranched stems. Small white flowers show up in late spring to early summer and have a sweet lily-like fragrance.

Columbines – who does not love these flowers. Columbines come in many different colors ranging from yellow and orange to purple, blue, and pink. They will self-seed over time to form colonies. Hummingbirds are attracted by columbines. I actually just saw my first hummingbird for the year on my purple columbines.

Hellebores or Lenten Rose is a cold hardy perennial. It's a popular shade plant that blooms through late winter into early spring. Hellebores come in an ever-growing variety of colors and their pretty faces can really brighten a late, cloudy, winter's day.

Astilbe has tiny flowers which typically in show up in July. The flowers are those arching plumes that are so easily recognizable. Plant in masses for maximum effect.

Dicentra or Bleeding Heart is a North American native. Its flowers are heart shaped, giving the plant its common name. Flowers arrive in the springtime.

Pulmonaria or Lungwort is valued for both its foliage and flowers. Tiny funnel shaped flowers range from cobalt blues to pinks. When combined with the foliage which can be silver spotted, silver with green midribs and edges or splotches, these plants can put on a spectacular show.

Tradescantia or Spiderwort can grow to heights of 3' and can get even taller in shadier spots. Flowers vary from white, violets, and pinks. Definitely give these a heavy pruning to keep from getting too leggy. They will come right back.

Celandine Poppy and Virginia Bluebells are two native flowers that put on quite a springtime show. The Celandine poppy has bright yellow flowers, and the bluebells are just as their name describes.

As we said before, your garden is your own personal canvas. Be as creative as you want to be. Add variety with lots of different colors or go for the single bloom color throughout the garden.

Throw in both annuals and perennials to see what catches your fancy. I personally like a mix with my perennials adding a backdrop to annual caladiums, begonias, and impatiens.

Remember to consider the items we talked about at the beginning when planning your sun or shade garden. Bloom time, Colors, Cut flowers and/or fragrance; do you have a garden big enough for layers of plants? Are you concealing an eyesore? Would you prefer a container garden? Consider your water requirements? Make sure you know your sun and shade spots in your garden; and, last but certainly not least, how hard do you want to have to work to enjoy your garden.

BLIOGRAPHY

Books:

“Plants you Can’t Kill: 101 Easy-To-Grow Species for Beginning Gardeners” by Stacy Tornio (2017). *

‘Tough Plants for Southern Gardens’ by Felder Rushing (2003). *

“Best Native Plants for Southern Gardens: A Handbook for Gardeners, Homeowners, and Professionals” by Gil Nelson (2010).*

“The New Sunset Western Garden Book”, by Sunset Books. (Yes, it says “western” but still contains nearly every plant for our area and is a good descriptive resource with photos of every plant contained in the book).

* This book is available at Linebaugh Library.

Websites:

<https://utextensionanr.tennessee.edu/residential-and-consumer-horticulture/>

Click on the Publications link at the bottom of the page to do a search for your specific topic. The publication “Annual and Perennial Flower Shade Gardening in Tennessee” (PB1585) was found on this site.

<https://www.missouribotanicalgarden.org/plantfinder/plantfindersearch.aspx>

This is a great site for plant descriptions and requirements.

Lists:

A list of native shade perennials from Rutherford County Master Gardener Ran Powers follows:

RAN'S LIST

The following is a list of native shade perennials from Rutherford County Master Gardener Ran Powers, along with his personal observations and opinions. You may "Google" any of these to get "professional" descriptions from Missouri Botanical Garden and many others.

- Indian Pink (*Spigelia marilandica*): Perhaps my favorite, underused. Can take quite a bit of sun but does not like to dry out. Loves eastern exposure - morning sun, afternoon shade. In fact, I think all of these like an eastern exposure, free of tree root competition.
- Cardinal Flower (*Lobelia cardinalis*): The best hummingbird plant.
- Great Blue Lobelia (*Lobelia siphilitica*): Our native bumblebees love it.
- Woodland Phlox (*Phlox divaricata*): Great fragrance.
- Wild Geranium (*Geranium maculatum*): Most "Cranesbills" at garden centers are from Europe.
- Solomon's Plume (*Smilacina racemosa*): Also called False Solomon's Seal, but I like Solomon's Plume! And "Smilacina" has been changed to "Maianthemum"! - who does these things! There is a native "Solomon's Seal" (*Polygonatum* species), though the most common one in garden centers, Variegated Solomon's Seal, is European.
- Goatsbeard (*Aruncus dioicus*): Not to be confused with Astilbe, totally different plants.
- Turtlehead (*Chelone glabra* and *Chelone lyonii*). I have always liked these, they spread when happy, but not at all invasive.
- Black Cohosh (*Actaea racemosa*): Big, bold, beautiful, a little temperamental.
- Crested Iris (*Iris cristata*): The Bearded (German) Iris that is so popular is native to Europe.
- Blue-eyed Grass (*Sisyrinchium angustifolium*): Actually an iris.
- Celandine Poppy (*Stylophorum diphyllum*): Easy to grow in moist shade.
- Shooting Star (*Dodecatheon meadia*): Hard to establish, but worth it if you can.
- White Wood Aster (*Aster divaricatus* - now *Eurybia divaricate*): Interesting native in that it likes dry shade.
- Devil's Darning Needles (*Clematis virginiana*): Our only native clematis.
- Sedges (*Carex*): Not actually a grass, but grass-like, they are shade-loving, many (not all) are US natives.
- Ferns: Lady Fern, Christmas Fern, Cinnamon Fern, Maidenhair Fern, there's more.

- A few others: Columbine (most columbines at garden centers are not the native *Aquilegia canadensis*), Spiderwort (*Tradescantia*), Bluebells (*Mertensia virginica*), Foamflower (*Tiarella*), Coral Bells (*Heuchera*), Jack-in-the-Pulpit (*Arisaema triphyllum*), Wild Ginger (*Asarum*), Trillium, Trout Lily (*Erythronium Americanum*).
- Shrubs: Buttonbush, Spicebush, Hearts-a-Bustin, Oakleaf Hydrangea, Wild (Smooth) Hydrangea.
- Last but not least, I've got to include the lowly Pokeweed (*Phytolacca americana*), which grows in sun or shade. This lady says it best. She has been a big influence on my whole gardening life, if you get a chance read some of her essays and articles, I think her website is a national treasure:
<https://www.humanegardener.com/pokeweed-write-home/>
- All these are Tennessee natives - you can search the name of the plant followed by "native range", go to "Images", and there is usually a distribution map available. Here's an example for Indian Pink:
https://live.staticflickr.com/65535/49898134472_671dc9d820_z.jpg