

Southeast



Native Plant **GARDENING** FOR **BIRDS, BEES & BUTTERFLIES**



Jaret C. Daniels

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Jaret C. Daniels

Adventure Publications
Cambridge, Minnesota

DEDICATION

To my wife, Stephanie, for her unconditional love and support. I am continuously grateful to have such an amazing person with whom to share my life.

ACKNOWLEDGMENTS

Thanks to my parents for their enduring encouragement of my interest in natural history and all things wild.

Cover and book design by Jonathan Norberg
Edited by Brett Ortler and Ritchey Halphen
Proofread by Melissa Haskin

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credits continued to page 276

10 9 8 7 6 5 4 3 2 1

Native Plant Gardening for Birds, Bees & Butterflies: Southeast

Copyright © 2021 by Jaret Daniels
Published by Adventure Publications
An imprint of AdventureKEEN
310 Garfield Street South
Cambridge, Minnesota 55008
(800) 678-7006
www.adventurepublications.net
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Printed in the United States of America
ISBN 978-1-64755-036-3 (pbk.); ISBN 978-1-64755-037-0 (ebook)

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Why You Should Plant a Garden

Landscaping with native plants offers numerous benefits. First and foremost, it helps increase habitat and provides critical resources for wildlife. Studies have shown that including native plant species and increasing overall plant diversity, help support a greater abundance and diversity of wildlife. Natives are adapted to the growing conditions, such as soil and climate, of the locations where they naturally occur. As a result, they tend to perform better than nonnative species once established, have fewer pest or disease problems, and require less water, fertilizer, and general maintenance—all of which can provide cost savings over time. Lastly, they add tremendous beauty to our landscapes and help provide increased opportunities for people to connect—or reconnect—with nature.

FIRST STEP: INVENTORY YOUR YARD

When you plant a garden, it's critical to select plants that will thrive on your property. This means considering a number of factors, such as light levels and soil conditions, but this isn't as complicated as it might seem at first. In fact, doing just a little homework ahead of time will improve your odds of growing healthy, beautiful plants—and attracting pollinators—dramatically.

CHECK YOUR HARDINESS ZONE

An easy first step is to check your hardiness zone. The USDA maintains the Plant Hardiness Zone Map (planthardiness.ars.usda.gov), which can be used to help determine appropriate plants for your climate. It is divided into numbered 10°F increments (further divided into two zones per



Credit: USDA Plant Hardiness Zone Map, 2012. Agricultural Research Service, U.S. Department of Agriculture. Accessed from <https://planthardiness.ars.usda.gov/>.

number), based on average annual extreme minimum winter temperature (the lowest temperature it reaches an average year). So for example, Montgomery, Alabama, is in Zone 8a, where the average annual extreme minimum temperature is 10°F, and about 50 miles north of there, you'll encounter Zone 7b, where the average minimum temperature is 5°F.

In general, for best results, avoid plants that have a higher zone number than yours; they are more sensitive to cold temperatures and thus are unlikely to reliably survive over the long term. Note, however, that Florida is a bit of an anomaly compared with the rest of the Southeast because of its humid subtropical climate. If you select plants rated for lower hardiness zones, they may not get enough of a winter chilling period to perform well—in other words, they cannot tolerate the heat. Inadequate chilling can particularly result in poor flower or fruit production. So, it's best to pick plants specifically suited to the zone in which you live.

SPACE CONSIDERATIONS

Whether you have a sprawling meadow or just enough space for a container garden (see page 266), the first step when planning a garden is to establish how much room is available, as the overall garden area directly influences plant selection. Avoid the temptation to overcrowd the available space. Plants need room to grow, so think about how much space each plant will require once it matures, and be realistic. Use this guide and other resources to help determine each plant's height, overall form, and how much it spreads, and plan accordingly before putting it in the ground.

ANALYZE LIGHT LEVELS

Note how many hours of direct, unfiltered sunlight your proposed planting site receives in the summer. Plants labeled as **Full Sun** will thrive in sunny locations that receive at least 6 full hours of sunlight per day during the growing season. While such plants may still grow in locations that have less light, overall growth and flowering performance may be impacted, often severely.

Plants characterized as **Partial Sun** or **Partial Shade** typically perform best with 4–6 hours of direct sunlight a day or dappled light for the duration of the day. They often thrive when exposed to early day sun and may benefit from a bit less illumination during the hottest times of the afternoon.

Full Shade plants require fewer than 4 hours of direct sunlight. They often do quite well in locations with dappled shade and tend to prefer direct sun in the morning or the evening.

TAKING SLOPE AND ELEVATION INTO ACCOUNT

When you're evaluating your yard's light levels, keep slope exposure in mind, and note the direction a planting site is angled. An area's slope affects the amount of light it receives. North-facing slopes, for example, receive less direct sunlight. With reduced heating, they are cooler, and the soil tends to remain moist for a longer period of time. Such sites also experience a longer period of frost. By contrast, south- and west-facing slopes receive ample sunlight. They tend to be hotter and have a somewhat longer growing season. With increased sun comes increased transpiration and evaporation, making such sites drier; this means they often require increased irrigation to maintain adequate soil moisture. Plants that are more heat and drought tolerant are often ideal for

such exposures. While the impact of slope on your plantings can be subtle, it is nonetheless worth considering, especially at higher latitudes (30–55 degrees north), where slope can have a greater impact on light levels.

On a similar note, site elevation is also worth considering. High points in the landscape, such as along the ridge of a berm, are often more exposed to wind. This tends to dry out soil more rapidly, batters plants, and produces harsher winter conditions. Such locations are challenging for tender or delicate species, which prefer more-protected sites. Instead, choose drought-tolerant, more-robust plants.

ANALYZING MOISTURE LEVELS

Likewise, site moisture is vital to evaluate. Is the site in question consistently wet, moist, average, or dry? In most cases, you can tell simply by visually inspecting the site on a regular basis. Wet sites, for example, can be characterized as being reliably soggy, whereas moist sites are simply damp. Site location and drainage may also be useful. Is the site adjacent to a stream, wetland, or depression? Does rainwater regularly flow into or collect in the site? Soil composition and texture, such as the proportion of clay, silt, or sand present, directly impacts moisture retention and can be used to help assess site conditions.



Testing soil texture

A SIMPLE SOIL TEXTURE TEST

If you're not sure, conduct a quick soil texture test. To do so, dig down about 6–8 inches with a shovel or trowel, and grab a handful of soil. First, rub a small amount through your fingers. How does it feel? Sandy soil is a bit coarse and feels somewhat gritty, whereas clay tends to feel a little sticky. Next, grab another handful. Moisten it slightly, squeeze it into a ball, and then open your hand. Sandy soil tends to fall apart almost immediately. Loamy soil (which contains a mix of sand and clay) generally holds its shape but crumbles somewhat when prodded. Clay soil, by contrast, remains firmly together in a ball and resists breaking apart when pressure is applied.

SOIL TESTING

While it's not a necessity when planting a garden, it's often useful to get your soil tested. As soil properties directly affect plant growth and performance, knowing the pH level (how acidic or alkaline your soil is) and its nutrient levels can provide valuable insight, helping you select plants that are best suited for your specific conditions. Soil testing also helps you determine the best way to augment the existing soil and how to select the most efficient fertilizers if you opt to fertilize.



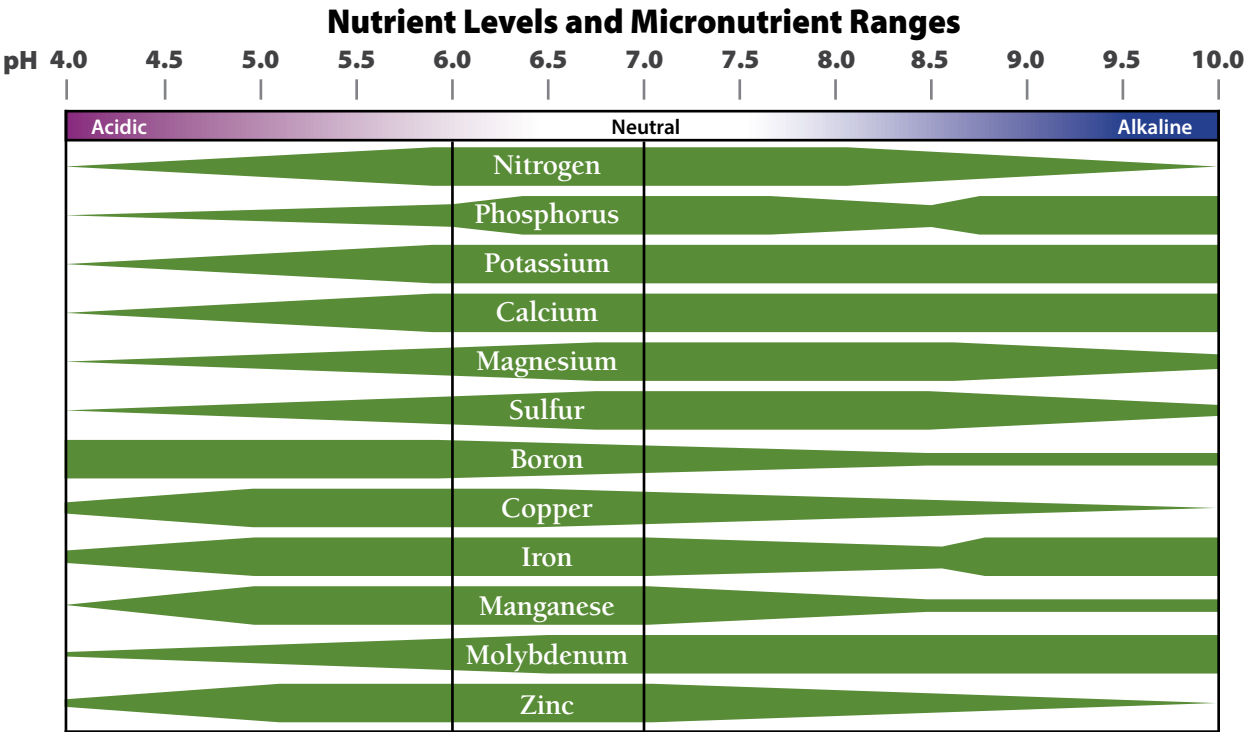
A pH test kit

Better yet, soil testing is simple and inexpensive. Most basic soil tests, which analyze pH, organic matter, and the levels of several basic essential nutrients are about \$20 and often less. They're available at many home improvement stores, garden centers, and online. Local county extension offices also often test soil; for more information, including soil collecting procedures, laboratories available to analyze your sample, and costs, see page 274 for contact information.

When testing soil, be sure to test multiple areas, as soil conditions may vary depending on location and nearby trees/vegetation. If you really want to know everything about your soil, there are tests that go far beyond the basics, including tests for salt levels, trace elements, and even tests for lead contamination.

INTERPRETING SOIL TEST RESULTS

The chart below shows a number of common soil nutrients and micronutrients. When you get your soil tested, you'll receive a report indicating how acidic your soil is and the range of nutrients (and in some cases, micronutrients) present in your soil. You can then use this information when planning your garden and when preparing any future soil amendments.



Optimum Soil Availability

PLANNING AHEAD

In all cases, a little planning will produce better results: Your plants will perform better, your landscape will look more attractive, and most importantly, you (and the pollinators) will be happier. The cardinal rule is simple: pick the right plant for the location. For example, avoid forcing a sun-loving species into a shady spot. Instead, tailor your design and plant choices to your landscape's conditions. This is the only sure recipe for success.

WHEN TO PLANT

There is no hard-and-fast rule as to the best time to plant. Most gardeners are generally accustomed to planting in spring, once the growing season begins. This allows new plants ample time to get established, grow, and add beauty to the landscape. It also gives them a head start before the summer heat arrives, which can add to plant stress and necessitate more frequent irrigation. Planting during hot and dry conditions requires extra care and attention for best results, so keep this in mind if adding plants to your landscape during the summer months or during periods of abnormal heat or drought.

Fall planting is often ideal. The weather is often more predictable than in spring and the heat less intense compared to the peak of summer, especially in more northerly climates. The resulting more stable, mild conditions reduce plant stress. Soil temperatures are also quite warm, which helps stimulate root growth. Moreover, the germination of many weeds tends to wind down later in the season, which typically means less competition for the new plantings. Collectively, these conditions lead to increased plant growth and more rapid overall establishment. For best success, however, plan to get all plants in the ground with at least one month of the growing season remaining. This ensures that they have time to grow before increased chances of frost arrive. Fall is also an ideal time to divide perennials if needed.



Hand-removal works, but is labor intensive

ELIMINATING EXISTING WEEDS

Weeds are certainly one of the biggest challenges and frustrations in the garden. Unfortunately, there is no silver bullet for their control. Good site preparation prior to planting can make quite a difference, however. It can substantially minimize future weed pressure, and in turn, provides plants with better growing conditions. As with all other aspects of landscaping, it is useful to develop a detailed and realistic site-preparation plan and plan ahead before beginning.

In general, there are three main weed issues to consider. The first is obvious: eliminating existing weeds. Depending on the size of your site and the number of weeds, this can be done by simple hand removal, or by weed torching, tilling, or applying a nonselective herbicide such as glyphosate directly to the weed foliage. If using a herbicide, be sure to carefully follow all the label instructions—to the letter—regarding application and safety. For larger sites, or sites with an increased weed load, herbicide application is typically the most labor- and cost-effective method. In this case, it is useful to mow the site, wait a few weeks until the weeds start to regrow, and then apply herbicide. A final mow (after a waiting period for the herbicide to take effect; see label) will then clear away most of the dead weed debris. In some cases, more than one cycle of herbicide application and mowing (spaced out about 2–4 weeks apart) may be necessary to get the best results. Note that for sites infested with weedy grasses, additional

measures may need to be taken to produce effective control. When the weeds are removed, be sure to review the herbicide label for any potential residual effects that may negatively impact subsequent seeding or planting.

THE SEED BANK

The second weed-related issue to consider is the seed bank, or weed seeds present in the soil that can germinate later, presenting a problem. If you want to avoid chemicals, soil solarization is one particularly useful strategy to try in warmer Southern climates. This simple method can be readily applied to both large or small areas. It involves covering existing soil with clear plastic and taking advantage of sunlight to heat the soil to a temperature sufficient to kill weeds, weed seeds, and potentially a range of soil pests and pathogens.



Soil solarization in progress

For best results, conduct soil solarization during the warmest months of the year. Start by clearing the area of all plants and associated debris. This ensures that the plastic can directly lay on the surface of the soil without large air pockets. Next, water the soil thoroughly. Moisture is a good conductor of heat and helps increase its penetration into the soil. Cover the area with clear plastic sheeting. Various sized rolls of general-purpose plastic sheeting can be purchased from home improvement stores or garden centers and are relatively inexpensive. It is useful to use a somewhat thicker (higher mil) product, usually 1.5 mil or greater, as it will help resist tears and punctures. Once the area is fully covered, bury the ends in soil or otherwise weigh them down with soil, bricks, lumber, or other material. This ensures that the plastic is sufficiently anchored and removes any air gaps, so that it can easily trap heat. To maximize effectiveness, it is generally recommended to leave the soil covered for 4–8 weeks.

Soil-applied herbicides are another option to combat the weed seed bank. These are applied to the soil after target plants have been established, and they create a barrier that kills weeds shortly after they germinate. They can provide effective residual control of various common broadleaf weeds and some annual weedy grasses for several weeks. Application may need to be repeated several times during the growing season for longer prevention. It is important to understand that no herbicide provides complete control and some products may injure existing plants or turf. As with other chemicals, always thoroughly read the label before use, and carefully follow the manufacturer's safety and application instructions.

NUISANCE WEEDS

The last main weed issue to address is nuisance weed control after plant establishment. Well-executed site preparation and planning can greatly reduce—but never completely eliminate—nuisance weeds. Beyond often being unattractive, weeds compete with your plants for resources, including light, water, and nutrients. Minor spot-weeding can often easily be done by hand or with the use of a weed torch. This should be done regularly for best control. Mulching is often one of the best ways to suppress nuisance weeds and significantly reduces the need for spot control, which can be time-consuming and inconvenient. Mulch also helps retain soil moisture and maintain a more consistent soil temperature, which can lessen plant stress, enhance plant growth, and reduce how much you need to water. Mulch can beautify an area by providing a more neat and manicured look. Many natural mulches even help add organic material to the soil over time as they decompose.



Compost is a popular soil amendment.

IMPROVING THE SOIL

Many soils require improvement to enhance their overall quality and structure. Organic matter such as compost, animal manure, straw, shredded wood chips, fallen leaves, and peat are common choices. These help improve fertility, water and nutrient retention, aeration, permeability, and other soil properties, which in turn promote healthy plant growth. Most organic amendments are easy to obtain. Compost, for example, is relatively simple to make or can be purchased from a local garden center. Be aware that some organic matter, such as animal manure, may contain weed seeds. Beyond organic matter, additional amendments such as sand, gravel, vermiculite, or perlite can also be used to help improve various soil properties. You can even use

various amendments to tweak the soil pH or address key mineral or other nutrient deficiencies. Before doing so, consult your soil test results (see page 7), and use those results as a guide. You may also wish to get advice from a nursery professional or local extension agent.

NATIVE PLANTS MATTER

Studies have shown that including native plant species and increasing the overall plant diversity in your garden helps promote species diversity. Connecting these wildlife-friendly landscapes into a wider network—think of it as a pollinator trail of sorts—helps native pollinators and birds more easily and safely move from one place to another, maintains healthier wildlife populations and habitats, and improves or creates more opportunities for people to connect or reconnect with nature. By doing so, we can establish healthier and more-sustainable spaces for wildlife, and for humans.

PLANT LIFE CYCLE

Plants are generally characterized by their life cycle. While most woody plants are relatively long-lived, herbaceous species can be divided into three main categories: annuals, perennials, and biennials. Annuals complete their entire life cycle from initial germination to seeding in a single growing season. Only the seed, but not the plant, survives. Such species need to be planted anew each year or will germinate from seed dispersed by previous years' plants. Perennials, by contrast, survive and continue to grow for several years, with many surviving for much longer. Lastly, biennials take two years to complete development. The first year is one of leafy growth, while flowering and seed production are completed in the second full season. The original plant does not return for a third year of growth.



Black-eyed Susans

GARDEN DESIGN

Before you begin putting plants in the ground, it is helpful to make a basic plan or design sketch. Review the requirements and key features of each plant, such as light, moisture, and soil preferences, mature size and spread, bloom time, flower color, leaf color, and fall color. Such information will help guide plant placement and your overall landscape design. Then, match plants with similar requirements together. Place the tallest plants in the back of the bed and shorter plants in the foreground, but keep light levels and sun direction in mind.

The total planting area available and its configuration will influence plant selection and quantity. For example, perennial borders tend to be more narrow, linear spaces accessed from only one side. By comparison, cottage gardens can be more expansive and creatively designed. It is also often beneficial to group multiple plants of the same species together. Odd numbers of plant groupings are typically most visually pleasing, as this provides waves or blocks of color and texture in the landscape. For larval host plants, it also provides increased food resources for hungry larvae.

PLANT DIVERSITY

In general, increased plant diversity helps support a greater abundance and diversity of wildlife. If this is your goal, design your landscape accordingly. Pick plants that offer a wide range of quality resources of nectar, pollen, seed, fruit, and larval food. Be sure to include species that offer resources throughout the growing season, not just at one particular time period. This is particularly important for pollinating insects. Additionally, choose blooming plants that display a variety of flower color, size, and shape. For example, plants with long tubular blossoms may be most accessible and attractive to hummingbirds but not to smaller bees or butterflies. Lastly, pick plants that vary in height and form. This will provide needed structure in the landscape that in turn offers shelter, cover, nesting sites, perches, forage for food, or needed shade.



Choose carefully when selecting plants.

PLANT SELECTION AT THE NURSERY

Choosing plants for your landscape can be fun and highly rewarding. Nonetheless, some general best practices will help ensure the best possible outcome. Consult your yard inventory and remember to select plants that match the conditions of your property and the specific site in question. If you purchase plants from a home garden center, local nursery, or plant sale, take time to carefully inspect each one. When buying plants, be choosy. Examine all parts of the plant. Avoid plants with damaged stems, branches, or roots, yellowing or wilted leaves, or that otherwise have an overall unhealthy appearance. If you have doubts, it's probably good to stick with your instincts. Remember, you are making an investment in your property, so opt for the cream of the crop, such as plants with lush, robust, healthy foliage and a symmetrical form overall. These will likely perform best and make your landscape look its best.

When purchasing native plants or seed, especially by mail, it is important to select varieties that are native to your region and locality. This seed stock is adapted to the environmental conditions of your region, so the resulting plants will typically perform much better. For example, stock from North Carolina may not do as well in Minnesota or the rest of the Midwest, owing to differences in soil and climate. Purchasing local and regional ecotypes additionally helps safeguard the genetic integrity of native plants in your area.

CULTIVARS & HYBRIDS

The topic of cultivars and hybrids is often highly contentious. Cultivars of native species, often referred to as “nativars,” represent plants that have been specifically bred to select for a specific, desirable characteristic. This might include traits such as height, form, leaf color, or flower size or color. The resulting cultivars are often more flashy than their true native counterparts or offer additional options for gardeners that can add to their appeal and broad horticultural marketability. Commercial cultivars of many common natives, such as *Gaillardia*, *Liatris*, *Echinacea*, *Coreopsis*, and *Symphyotrichum* to name but a few, are readily available. Hybrids are reproductive crosses between two different but often closely related species with the goal of combining key features of both. Many cultivars are hybrids.

Be aware that there are potential drawbacks to some cultivars and hybrids, and many are often misleadingly sold as natives. Double- or triple-flowered varieties, for example, while attractive, often make it difficult for pollinators to access nectar and pollen. Many others are sterile and do not produce viable seeds or fruit. Others may lack nectar altogether or provide floral rewards with

reduced nutritional benefits. These have limited value and attractiveness to landscapes designed to benefit birds, pollinators, and other wildlife. When in doubt, purchase plants from nurseries specializing in natives, or contact your local native plant society, botanical garden, arboretum, or extension office for recommendations on suppliers.

AVOID PLANTS TREATED WITH PESTICIDES

Special care should be taken when purchasing plants that you hope will serve as larval hosts for caterpillars or as nectar plants for butterflies and other pollinating insects. Many plants sold at retailers, particularly those at larger garden centers, are often treated with pesticides to help control insect pests and resulting plant damage. While all pesticides pose a danger to insects, systemic pesticides, such as neonicotinoids, are among the most worrisome. Systemic pesticides are chemicals that are soluble in water and can be readily absorbed by a plant. They are relatively long-lasting to provide extended protection against sap- and leaf-feeding insects. Unfortunately, treated plants can be deadly to butterfly larvae, and there is evidence that some products contaminate flower pollen and nectar, resulting in potential harm to bees and other insect pollinators. Therefore, it is critical to always ascertain if the plants you're buying have been treated. Avoid treated plants, and if you're not sure about a plant, find a different supplier. Unfortunately, there is no quick-and-easy test.



Avoid plants treated with pesticides.

BEFORE YOU PLANT, STAGE YOUR GARDEN

When you're planning a garden, don't crowd plants. It's easy to forget that they will grow and increase in size, often dramatically, as they mature, so plan, and plant, accordingly. When your draft plan is finalized and you've acquired your plants/seeds, place all plants in their specific locations in the landscape and review. Look at the site from multiple angles, and adjust if needed. When happy, finish by putting all plants in the ground.

GIVING PLANTS A GOOD START

New plants perform their best with help right from the beginning. This includes initial planting. Start by digging a hole at least twice as wide as the root ball and just as deep. Next, gently remove the plant from its pot. Loosen the root ball by massaging the roots, separating them somewhat with your fingers, and place it in the hole. For bare-root plants, carefully spread out the roots when planting. Avoid placing the plant deeper than the original level in the pot, and do not place horticultural oil (a pesticide) on top of the root ball. Doing so can threaten the long-term health and performance of the plant. Once the root ball is in the hole, backfill with soil about half or three-quarters of the way upward, then gently tamp down the soil, and water. This will help the soil settle and remove any air pockets. Then fill the remainder of the hole with soil, and firmly compress it. Finally, water new plants regularly for at least the first three weeks. Following these steps will help ensure that your new plants have a strong start and are ready to perform.

MAINTENANCE

Most perennial plants, shrubs, and trees will thrive for years if well cared for. Do your homework to better understand the basic long-term needs of your plants, including watering, fertilization, pest and disease control, pruning, and winter care. Remember that a little basic planning and maintenance can make a huge difference. The goal is to have happy, healthy, and productive plants. A good example is pest control. While plant pests can be a nuisance, all big issues start out small. By regularly examining your plants, you can easily discover pests before they become a larger problem. Once found, always address pest problems at a local level. Simply removing insect pests by pruning off the affected part of the plant or by spraying them with a strong jet of water can help significantly. Insecticidal soaps and horticultural oils can be good options, but they often can have negative impacts to the environment and non-target species.



Aphids and other insects may be annoying, but avoid broad-spectrum insecticides.

AVOID BROAD-SPECTRUM INSECTICIDES

Avoid or minimize the use of more-toxic broad-spectrum insecticides. These are designed to kill a wide range of insects and can harm many of the beneficial species that you wish to attract. If chemicals are used, always treat pest problems as locally as possible, and never spray or apply pesticides to the entire garden or landscape. Consult your local nursery professional or extension agent to help identify specific plant pest or disease issues and determine a viable solution. They can additionally help provide recommendations for effective pruning and fertilizing.

DEADHEADING

Many flowering perennials benefit from removing spent blossoms. Known as deadheading, this can help give plants a more manicured appearance and promote repeated blooming, which can in turn extend the flowering time of many species and provide added floral resources for pollinating insects. With that said, deadheading will prevent seeds or fruit from developing, and such food resources are also beneficial for many forms of wildlife, such as songbirds. So just how much to deadhead is something of a balancing act.

STAKING DOWN PLANTS

Some tall perennials or even newly planted trees may need to be staked. This can provide additional support and help prevent them from leaning, flopping over, or having weaker upright stems or flowering stalks bend or possibly break. Supports can also help elevate vines or rambling plants in the landscape, thereby enhancing their visual interest, appearance, and even performance.

WHAT TO DO BEFORE WINTER

As winter approaches, there is often some debate about how to prepare your landscape—whether or not you should cut back the dead foliage on perennials or leave them standing. In general, this is more of an aesthetic issue than one of essential plant care. With landscapes designed for wildlife in mind, it is best to leave the dead foliage, stems, and flower heads in place. Not only do the remains of many flowering perennials and grasses provide highly attractive visual interest during the drab winter months, but various species also provide valuable food or shelter to songbirds and other wildlife. The exception is particularly tender perennials, such as those at the margin of their normal hardiness zone. Such plants often require a little extra care to help them survive winter temperatures. Start by cutting off the dead vegetation just a few inches above the soil surface. Leaving a few inches of vegetation will help you keep track of the plant in your landscape and prevent any potential damage to the roots. Next, cover the plant with several inches of mulch. This will help it conserve moisture and will insulate the soil, protecting it. Desiccation and freezing temperatures can injure or kill more tender plants.



Dead foliage helps out wildlife.

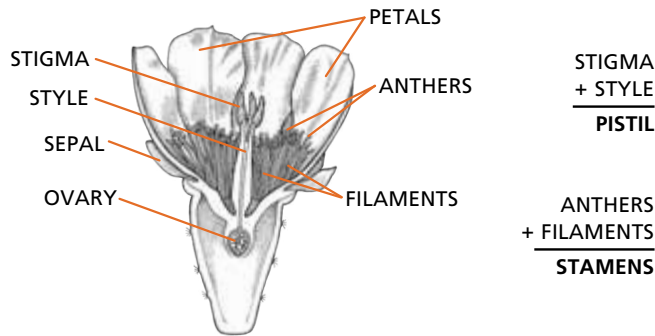


Spicebush Swallowtail butterfly on a cardinal flower

The Basics of Plant Anatomy

Plants are complex living things. Their typical body plan consists of detailed structures, including leaves, stems, and roots, along with reproductive parts that include flowers, fruits, and seeds. Flowers represent the sexual reproductive organs of a plant. The male organs are called stamens; each stamen includes a pollen-bearing anther atop an elongated filament. The pistil represents the female organ. It includes a

PARTS OF A FLOWER



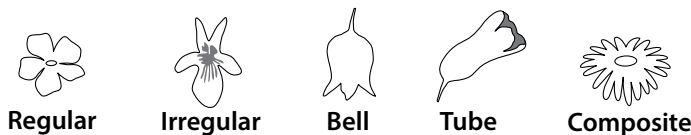
stigma, the surface of which is sticky. It receives and holds pollen. The majority of flowering plants that gardeners are familiar with are bisexual, or often called “perfect,” and such plants have flowers with both male and female elements. Other plants bear unisexual flowers: Monoecious plants have both male and female flowers on the same plant. In contrast, dioecious plants bear male and female blooms on separate individual plants. Some examples of dioecious plants include holly (*Ilex* spp.), pussy willow (*Salix discolor*), and staghorn sumac (*Rhus typhina*).

FLOWERS

Flowers are arguably the showiest parts of a plant. In most cases, conspicuous and colorful petals surround the reproductive parts. They help publicize the availability of floral rewards, such as pollen and nectar, to an array of pollinating organisms. All the petals of a flower are collectively called the corolla. Sepals occur below the corolla. Like petals, they are modified leaves. Frequently green in color and relatively small, they help protect the developing flower bud and support the corolla when in bloom. This outermost whorl of flower components is called the calyx. In some cases, however, sepals may be large and brightly colored. This typically occurs in flowering plant species that lack petals.

FLOWER TERMINOLOGY

Botanically speaking, there are many types of flowers, but they can be simplified into five basic types. Regular flowers have a round shape with three or more petals and lack a disk-like center. Irregular flowers are not round, but uniquely shaped with fused petals. Bell flowers hang down with fused petals. Tube flowers are longer and narrower than bell flowers and point upwards. Composite flowers (technically a flower cluster) are usually compact round clusters of tiny flowers that look like they are one larger bloom.



FLOWER CLUSTERS

The grouping of numerous flowers on a stem is called an inflorescence or a flower cluster. There are three main kinds of flower clusters, and they are based on shape: flat, round, or spike.



Flat



Round



Spike

LEAF TYPES

There are two main kinds of leaves: simple and compound. Simple leaves are leaves that are in one piece; the leaf is not divided into smaller leaflets. The leaf can have teeth or be smooth along the edges. It may have lobes and indentations that give the leaf its unique shape. Compound leaves have two or more distinct small leaves, called leaflets, arising from a single stalk. They can be broadly categorized as regular compound, twice compound, or palmate. Twice compound leaves are those with many distinct leaflets that arise from a secondary leafstalk. Palmate compound leaves have three or more leaflets arising from a common central point.



Simple



Compound



**Twice
Compound**



Palmate

LEAF ATTACHMENTS

Leaves attach to the stem in a number of different ways: alternately, oppositely, in a whorl, perfoliately, clasping, or basally. Sometimes a plant can have two different types of attachment. This is most often seen in the combination of basal leaves and leaves that attach to the main stem. For most plants, there is only one type of leaf attachment.

Alternate leaves attach to the stem in an alternating pattern, while opposite leaves attach to the stem directly opposite from one another. Whorled leaves have three or more leaves that attach around the stem at the same point. Perfoliate leaves are stalkless and have a leaf base that completely surrounds the main stem. Clasping leaves have no stalk, and the base of the leaf only partially surrounds the main stem. Basal leaves originate at the base of the plant, near the ground, usually grouped in a rosette.



Alternate



Opposite



Whorled



Perfoliate



Clasping



Basal

Why Protect Pollinators?

Pollination is essential. Globally, over 85 percent of all flowering plant species rely on or benefit from animals, primarily insects, for pollination. These many organisms move pollen from one blossom to another, enabling the plants to produce fruit, seeds, and the next generation of flowering plants. Without pollinators, it would be impossible to maintain productive, diverse natural plant communities and ensure the functionality of our agricultural lands. Alarming, many recent studies indicate that insect pollinator populations are declining in many regions, including the United States and Europe. Some of the hardest-hit groups include bees, moths, and butterflies, important pollinators for many wild and cultivated plants, including various specialty crops. As habitat loss and degradation is a primary driver of these declines, rebuilding wildlife-friendly landscapes is more important than ever.

That's where you come in. Gardening for wildlife is a fun and rewarding endeavor. Now, more than ever, the choices we make in our own landscapes matter. While such spaces can never replace pristine natural environments, they can provide pollinators and birds with important food, nesting, and shelter resources and help reduce the many impacts of habitat fragmentation and urbanization. A growing body of research supports the wildlife conservation benefit of these non-traditional lands. Private yards and home gardens collectively comprise the largest percentage of green space in most urban areas. Additionally, as the majority of Americans now live in cities and their surrounding suburbs, yards and gardens offer tremendous potential for each of us to make a difference.

Meet the Pollinators

While bees, especially the western honey bee (*Apis mellifera*, also known as the European honey bee), get most of the attention, when it comes to pollination, many other insects regularly visit flowers and serve as pollinators. The most common groups include butterflies, moths, beetles, flies, and wasps.

BEES

North America boasts some 4,000 different bee species, with several hundred species occurring in the Southeast. Florida has around 316 species, with North Carolina boasting over 500 species. With the exception of the nonnative western honey bee and a few other introduced species, the rest are native, and the majority of bees actually lead solitary lifestyles. They also display a wide range of sizes, colors, and behaviors, making them fascinating and attractive garden visitors. Collectively,

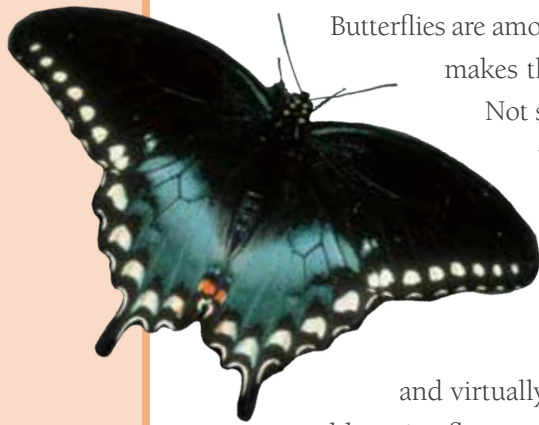


bees are arguably the most effective and efficient insect pollinators. Beyond visiting flowers for nectar, they also actively collect pollen. These raw materials represent the primary food resources for adult bees and their developing young. In other words, they are highly motivated to make many flower visits and transport pollen, the components necessary for successful pollination. In addition, bees actively forage for floral resources in and around the landscape in which they nest. The majority of bees are generalists; like hungry patrons visiting a buffet, they visit a broad array of different flowers, preferring plants with large amounts of high-quality resources when available.



1. Western honey bee (*Apis mellifera*) 2. Eastern bumblebee (*Bombus impatiens*) 3. Southeastern blueberry bee (*Habropoda laboriosa*) 4. Leaf-cutter bee (*Megachile* spp.) 5. Sweat bee (*Agapostemon* spp., *Halictus* spp.) 6. Long-horned bee (*Melissodes* spp.)

BUTTERFLIES



Butterflies are among the most recognizable and charismatic insects. Their tremendous appeal makes them ideal “gateway bugs” to help people connect with the natural world.

Not surprisingly, butterfly gardening and butterfly watching are soaring in popularity nationwide. While the greatest diversity of butterflies occurs in tropical regions of the world, North America is home to around 800 different species, with more than 250 species found in the Southeast.

All adult butterflies feed on liquids. Most species in our area consume sugar-rich nectar; this potent energy source helps power their flight and virtually all other activities. This is why butterflies are highly attracted to colorful blooming flowers. With the exception of the zebra longwing butterfly, which actively collects and feeds on pollen, all other species visit flowers to sip nectar. In the process of feeding, they often brush against the flowers’ anthers and inadvertently pick up pollen on their head, body, or wings, making them important pollinators.



1. Tiger swallowtail (*Papilio glaucus*) 2. Cabbage white (*Pieris rapae*) 3. Gray hairstreak (*Strymon melinus*) 4. Phaon Crescent (*Phyciodes phaon*) 5. Long-tailed skipper (*Urbanus proteus*) 6. Fiery skipper (*Hylephila phyleus*)

MOTHS

Compared to butterflies, moths are much more diverse. There are just around 250 butterfly species in the Southeast, but there are more than 3,500 species of moths, roughly 14 times as many. Despite this diversity, moths tend to be poorly studied and are often overlooked. As a result, relatively little is known about how much this primarily nocturnal group contributes to plant pollination.

Nonetheless, recent research suggests that moths play a particularly important role as pollinators, including as pollinators of specialty agricultural crops, augmenting the work of bees and other flower-visiting insects. Moths may also help improve the genetic diversity of plants because they transport pollen over greater distances than bees. It is almost a certainty that additional studies will reveal that moths play a critical role as pollinators.



1. White-lined sphinx (*Hyles lineata*) 2. Oleander Moth (*Syntomeida epilais*) 3. Bella moth (*Utetheisa ornatrix*)
4. Eight-spotted forester (*Alypia octomaculata*)

BEETLES

Beetles represent the largest and most diverse order of insects. In North America alone, there are approximately 28,000 species, and that's just a mere seven percent of the global total. Due to their tremendous numbers alone, beetles represent the largest group of pollinating animals, but not all beetles visit flowers. Those that do, visit in search of food, typically feeding on pollen, but they may also munch away on various flower parts and, less often, nectar. As beetles are typically somewhat clumsy, bulky insects, they need to physically land on and crawl across blossoms to feed, and in the process they frequently pick up pollen grains. They are most often encountered on larger open flowers or flowers with sizable clusters. This wonderful group of insects boasts a truly dizzying array of individual sizes, colors, and shapes, making observation fun and highly rewarding.



1. Goldenrod soldier beetle (*Chauliognathus pennsylvanicus*) 2. Locust borer (*Megacyllene robiniae*) 3. Hairy flower scarab (*Trichiotinus viridans*)

FLIES

With approximately 17,000 species found in North America, flies are another large and highly diverse group of insects, and a great many of them—even mosquitoes—frequent flowers. They typically feed on sugar-rich nectar, and occasionally pollen. Even though they have something of a negative reputation, flies are prolific and important pollinators, visiting a wide range of flowering plants, including many important crops, such as cherries, apples, pears, strawberries, and raspberries, among others. In addition, the larvae of many species play other key roles in the environment, including as predators that provide natural pest control or as decomposers, helping to break down dead plant or animal material. Some fly groups, such as hover flies (or flower flies), have a particularly strong predilection for flowers, and many species are highly convincing bee or wasp mimics.



1. Hoverfly (Syrphidae family) **2.** Flesh fly (Sarcophagidae family) **3.** Green bottle fly (*Lucilia sericata*) **4.** Mosquito (Culicidae family) **5.** Crane fly (Tipulidae family)

WASPS

Together with bees and ants, wasps belong to the order Hymenoptera, the third-largest group of insects. Despite often being feared, the vast majority of wasps are actually solitary, nonaggressive, and don't pose a stinging hazard. By contrast, social wasps, such as yellow jackets, paper wasps, and hornets, can deliver a painful sting and will actively defend their nest if disturbed or threatened. Collectively, wasps are highly beneficial insects. Many are important pollinators that frequent a wide range of flowering plants. The adults are equally valuable predators or parasites of a wide range of insects, including many pest species. Taken as a whole, wasps are far more beneficial to the ecosystem—and to us—than we give them credit for.



1. Northern paper wasp (*Polistes fuscatus*) **2.** Bald-faced hornet (*Dolichovespula maculata*) **3.** Blue mud dauber (*Chalybion californicum*) **4.** Four-banded stink bug hunter wasp (*Bicyrtes quadrifasciatus*)

BEE MIMICS AND LOOKALIKES

Looks can be deceiving: a range of flower-visiting insects mimic bees or wasps, displaying superficially similar yellow-and-black color patterns to scare off would-be predators. While a great many of these lookalikes are flies, some day-flying moths and even a scarab beetle or two get in on the act. Thus, it is important not to jump to quick conclusions when you spot a brightly colored insect. It takes careful observation to recognize these superb disguises.



1. Syrphid fly (*Sphaerophoria philanthus*) **2.** Bee fly (Bombyliidae family) **3.** Thysbe hummingbird moth (*Hemaris thysbe*) **4.** Scarab (Scarabaeidae family) **5.** Wasp mimic moth (*Vitacea polistiformis*) **6.** Delta flower scarab (*Trigonopeltastes delta*)

BIRDS

Birds are popular and welcomed garden visitors. Beyond their broad appeal, birds provide a range of valuable services to the landscape. Ruby-throated hummingbirds are colorful and entertaining flower visitors that help pollinate numerous plant species. A great many birds, such as bluebirds, wrens, woodpeckers, swallows, and crows, also feed on insects. This is especially true during

breeding season, when insects make up the majority of the high-protein diet adult birds feed to their young. In the process, they provide natural pest control and help keep plant-feeding insect populations in check. Still others help manage weeds by consuming large quantities of seed from aggressive or otherwise undesirable plants.

Fruit-feeding birds play a key role in seed dispersal. In fact, hundreds of plant species rely on our feathered friends for this valuable service. In doing so, birds help maintain healthy and diverse native plant populations.

Native Plant Conservation

Native plant populations are critical components of the ecosystem, so don't collect native plants or seeds from the wild. This can harm existing habitat, threaten local native plant populations, and adversely affect pollinators and other wildlife that rely on them for food. Additionally, in many instances, collecting native plants from the wild may be illegal. Instead, always purchase or acquire native plants from a reputable grower or source (see page 273 for recommendations).

How to Use This Book

All of the plants in this book are native plants, and they are organized by light requirements, with sections for **Full Sun**, **Full Sun to Partial Shade**, and **Partial Shade to Full Shade**. Each plant account includes information on the plant's size and growth pattern, hardiness zone, its bloom period, and what it attracts, as well as specific notes about the plant. When planning your garden, you can either find plants that strike your fancy by paging through the book, or you can consult the butterfly- and bee-specific garden plans on pages 262–264. If you're looking to attract a specific type of butterfly/caterpillar see page 270–272 for a list of larval hosts and page 269 for a list of plants that attract hummingbirds. And once you have your garden planned out, turn to page 273 for a list of some of the retail suppliers of native plants in the Southeast.

Southeast Plants at a Glance

With so many variables to consider, choosing plants for your garden can be a bit overwhelming. That's why we've created the following at-a-glance resource to help you decide what to plant.

It includes everything from hardiness zone, light level, and soil preference to blooming period and whether the plant attracts butterflies, bees, or birds.

Note: Browsing deer can cause damage to plants. While such feeding may simply be a nuisance, it can at times be quite destructive to a garden or landscape. Few plants are 100 percent deer-proof, especially if deer populations are large or available food resources are limited. Nonetheless, several species are considered moderately or highly resistant to deer, and they are indicated in the table that follows.



A wildflower garden in Newberry, FL

Southeast Plants at a Glance

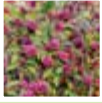




	COMMON NAME	SCIENTIFIC NAME	LIGHT LEVEL	SOUTHEAST HARDINESS ZONE
FULL SUN				
	Annual Phlox pg. 39	<i>Phlox drummondii</i>	Full sun	5a–11a
	Azure Blue Sage pg. 41	<i>Salvia azurea</i>	Full sun	5a–9a
	Black-Eyed Susan pg. 43	<i>Rudbeckia hirta</i>	Full sun	5a–10b
	Butterflyweed pg. 45	<i>Asclepias tuberosa</i>	Full sun	5a–10a
	Climbing Hempvine pg. 47	<i>Mikania scandens</i>	Full sun	5a–10b
	Common Hoptree pg. 49	<i>Ptelea trifoliata</i>	Full sun– partial shade	5a–9b
	Common Milkweed pg. 51	<i>Asclepias syriaca</i>	Full sun	5a–9a
	Common Sneezeweed pg. 53	<i>Helenium autumnale</i>	Full sun	5a–9b
	Cross Vine pg. 55	<i>Bignonia capreolata</i>	Full sun	5b–9b
	Culver's Root pg. 57	<i>Veronicastrum virginicum</i>	Full sun	5a–8a
	Elliott's Aster pg. 59	<i>Symphotrichum elliotii</i>	Full sun	7a–10b
	Flowering Spurge pg. 61	<i>Euphorbia corollata</i>	Full sun	5a–8b
	Goldenmane Tickseed pg. 63	<i>Coreopsis basalis</i>	Full sun	8b–9b
	Indian Blanket pg. 65	<i>Gaillardia pulchella</i>	Full sun	5a–11a
	Lanceleaf Coreopsis pg. 67	<i>Coreopsis lanceolata</i>	Full sun	5a–9b
	Lanceleaf Fogfruit pg. 69	<i>Phyla lanceolata</i>	Full sun	5a–8b
	Lindheimer's Beeblossom pg. 71	<i>Oenothera lindheimeri</i>	Full sun	5a–9b
	Marsh Blazing Star pg. 73	<i>Liatris spicata</i>	Full sun	5a–10b
	Narrowleaf Sunflower pg. 75	<i>Helianthus angustifolius</i>	Full sun	5a–9b
	Ohio Spiderwort pg. 77	<i>Tradescantia ohiensis</i>	Full sun	5a–9b

ATTRACTS BUTTERFLIES	ATTRACTS BEES	ATTRACTS BIRDS	SOIL PREFERENCE	BLOOMING PERIOD	DEER-RESISTANT
yes	no	no	average	spring–early summer	high
yes	yes	yes	dry–average	midsummer–midfall	low
yes	yes	yes	dry–average	late spring–midfall	high
yes	yes	yes	dry–average	late spring–early summer	high
yes	yes	yes	moist–wet	summer–early fall	high
yes	yes	no	average	spring	high
yes	yes	yes	dry–average	summer–early fall	high
yes	yes	no	moist–wet	late summer–midfall	high
yes	yes	yes	average	late winter–early summer	low
yes	yes	yes	moist	summer	moderate
yes	yes	no	moist–wet	mid–late fall	high
yes	yes	yes	dry–average	summer–early fall	high
yes	yes	no	dry–average	midspring–early summer	high
yes	yes	yes	dry–average	spring–fall	high
yes	yes	yes	dry–average	midspring–midsummer	moderate
yes	yes	no	moist–wet	spring–early fall	high
yes	yes	yes	average	late spring–midfall	moderate
yes	yes	yes	average–moist	midsummer–midfall	high
yes	yes	yes	moist–wet	late summer–fall	high
no	yes	no	dry–moist	spring–summer	moderate

Southeast Plants at a Glance (continued)

	COMMON NAME	SCIENTIFIC NAME	LIGHT LEVEL	SOUTHEAST HARDINESS ZONE
	Pickerelweed pg. 79	<i>Pontederia cordata</i>	Full sun	5a–10b
	Pinewoods Milkweed pg. 81	<i>Asclepias humistrata</i>	Full sun	8a–9b
	Purple Coneflower pg. 83	<i>Echinacea purpurea</i>	Full sun	5a–8b
	Purple Poppy Mallow pg. 85	<i>Callirhoe involucrata</i>	Full sun	5a–8b
	Rattlesnake Master pg. 87	<i>Eryngium yuccifolium</i>	Full sun	5a–10a
	Rose Mock Vervain pg. 89	<i>Glandularia canadensis</i>	Full sun	6a–10b
	Showy Evening Primrose pg. 91	<i>Oenothera speciosa</i>	Full sun	5a–9b
	Smooth Blue Aster pg. 93	<i>Symphyotrichum laeve</i>	Full sun	5a–8b
	Sourwood pg. 95	<i>Oxydendrum arboreum</i>	Full sun	5a–9b
	Summer Farewell pg. 97	<i>Dalea pinnata</i>	Full sun	7b–10a
	Swamp Rosemallow pg. 99	<i>Hibiscus moscheutos</i>	Full sun	5a–9b
	Tall Blazing Star pg. 101	<i>Liatris aspera</i>	Full sun	5a–8b
	Trumpet Honeysuckle pg. 103	<i>Lonicera sempervirens</i>	Full sun	5a–9b
	Tulip Poplar pg. 105	<i>Liriodendron tulipifera</i>	Full sun	5a–9a
	Upright Prairie Coneflower pg. 107	<i>Ratibida columnifera</i>	Full sun	5a–9a

FULL SUN TO PARTIAL SHADE

	American Beautyberry pg. 111	<i>Callicarpa americana</i>	Full sun–partial shade	6a–10b
	American Wisteria pg. 113	<i>Wisteria frutescens</i>	Full sun–partial shade	5a–9b
	Black Cherry pg. 115	<i>Prunus serotina</i>	Full sun–partial shade	5a–9b
	Blue Mistflower pg. 117	<i>Conoclinium coelestinum</i>	Full sun–partial shade	5a–10b
	Brown-Eyed Susan pg. 119	<i>Rudbeckia triloba</i>	Full sun–partial shade	5a–8b

	ATTRACTS BUTTERFLIES	ATTRACTS BEES	ATTRACTS BIRDS	SOIL PREFERENCE	BLOOMING PERIOD	DEER- RESISTANT
	yes	yes	yes	wet	late spring–midfall	high
	yes	yes	no	dry	spring–early summer	high
	yes	yes	yes	dry–average	late spring–early fall	high
	yes	yes	no	dry–average	late spring– midsummer	low
	yes	yes	yes	dry–moist	late spring–fall	high
	yes	yes	no	dry–moist	late spring–fall	moderate
	yes	yes	no	dry–average	early spring– midsummer	high
	yes	yes	no	dry–average	early–late fall	high
	yes	yes	yes	average–moist	summer	moderate
	yes	yes	yes	dry	late summer–midfall	moderate
	yes	yes	yes	moist–wet	summer–early fall	moderate
	yes	yes	yes	dry–average	late summer–midfall	moderate
	yes	no	yes	average–moist	late spring–summer	moderate
	yes	yes	yes	average–moist	mid–late spring	moderate
	yes	yes	no	dry–average	summer–early fall	high
	yes	yes	yes	average	summer	low
	yes	yes	yes	moist	midspring– early summer	high
	yes	yes	yes	average	spring	low
	yes	yes	yes	moist	summer–late fall	moderate
	yes	yes	yes	average–moist	midsummer–midfall	moderate

Southeast Plants at a Glance *(continued)*

	COMMON NAME	SCIENTIFIC NAME	LIGHT LEVEL	SOUTHEAST HARDINESS ZONE
	Buttonbush pg. 121	<i>Cephalanthus occidentalis</i>	Full sun– partial shade	5a–10b
	Cardinal Flower pg. 123	<i>Lobelia cardinalis</i>	Full sun– partial shade	5a–9a
	Carolina Wild Petunia pg. 125	<i>Ruellia caroliniensis</i>	Full sun– partial shade	5a–10b
	Chickasaw Plum pg. 127	<i>Prunus angustifolia</i>	Full sun– partial shade	5a–8b
	Climbing Aster pg. 129	<i>Ampelaster carolinianus</i>	Full sun– partial shade	8a–10b
	Common Boneset pg. 131	<i>Eupatorium perfoliatum</i>	Full sun– partial shade	5a–8b
	Coral Bean pg. 133	<i>Erythrina herbacea</i>	Full sun– partial shade	6b–11a
	Cutleaf Coneflower pg. 135	<i>Rudbeckia laciniata</i>	Full sun– partial shade	5a–9b
	Dahoon Holly pg. 137	<i>Ilex cassine</i>	Full sun– partial shade	7b–10b
	Deerberry pg. 139	<i>Vaccinium stamineum</i>	Full sun– partial shade	5a–9b
	Eastern Bluestar pg. 141	<i>Amsonia tabernaemontana</i>	Full sun– partial shade	5a–9a
	Eastern Prickly Pear pg. 143	<i>Opuntia humifusa</i>	Full sun– partial shade	5a–10b
	Eastern Redbud pg. 145	<i>Cercis canadensis</i>	Full sun– partial shade	5a–9b
	False Indigo pg. 147	<i>Amorpha fruticosa</i>	Full sun– partial shade	5a–10b
	Florida Dogwood pg. 149	<i>Cornus florida</i>	Full sun– partial shade	5a–9a
	Forked Bluecurls pg. 151	<i>Trichostema dichotomum</i>	Full sun– partial shade	5b–11a
	Foxglove Beardtongue pg. 153	<i>Penstemon digitalis</i>	Full sun– partial shade	5a–8b
	Giant Ironweed pg. 155	<i>Vernonia gigantea</i>	Full sun– partial shade	5a–8b
	Golden Alexanders pg. 157	<i>Zizia aurea</i>	Full sun– partial shade	5a–8b
	Hercules' Club pg. 159	<i>Zanthoxylum clava-herculis</i>	Full sun– partial shade	7b–9b
	Hoary Mountain Mint pg. 161	<i>Pycnanthemum incanum</i>	Full sun– partial shade	5a–8b

	ATTRACTS BUTTERFLIES	ATTRACTS BEES	ATTRACTS BIRDS	SOIL PREFERENCE	BLOOMING PERIOD	DEER-RESISTANT
	yes	yes	yes	moist–wet	late spring–early summer	moderate
	yes	no	yes	moist	summer–midfall	moderate
	yes	yes	no	dry–moist	late spring–early fall	high
	yes	yes	no	average	spring	low
	yes	yes	yes	moist–wet	fall–early winter	moderate
	yes	yes	yes	moist–wet	summer–early fall	high
	no	no	yes	dry–average	spring–fall	high
	yes	yes	no	moist	midsummer–early fall	high
	yes	yes	yes	moist–wet	spring	high
	yes	yes	yes	dry–moist	late spring–early summer	low
	yes	yes	yes	average–moist	late spring–early summer	high
	no	yes	no	dry	late spring–early summer	high
	yes	yes	no	moist	early spring	high
	yes	yes	no	average–moist	spring -early summer	high
	yes	yes	yes	moist	spring	low
	yes	yes	no	dry	late summer–fall	high
	yes	yes	yes	average–moist	late spring–early summer	high
	yes	yes	no	average–moist	summer–early fall	high
	yes	yes	no	moist	late spring–midsummer	high
	yes	yes	yes	average–moist	midspring–early summer	high
	yes	yes	no	dry–average	summer–early fall	high

Southeast Plants at a Glance (continued)








	COMMON NAME	SCIENTIFIC NAME	LIGHT LEVEL	SOUTHEAST HARDINESS ZONE
	Hollow Joe Pye Weed pg. 163	<i>Eutrochium fistulosum</i>	Full sun– partial shade	5a–8b
	Lemon Bee Balm pg. 165	<i>Monarda citriodora</i>	Full sun– partial shade	5a–11a
	Lyreleaf Sage pg. 167	<i>Salvia lyrata</i>	Full sun– partial shade	6a–10a
	New Jersey Tea pg. 169	<i>Ceanothus americanus</i>	Full sun– partial shade	5a–8b
	Northern Spicebush pg. 171	<i>Lindera benzoin</i>	Full sun– partial shade	5a–9a
	Obedient Plant pg. 173	<i>Physostegia virginiana</i>	Full sun– partial shade	5a–9b
	Pale Indian Plantain pg. 175	<i>Arnoglossum atriplicifolium</i>	Full sun– partial shade	5a–8b
	Partridge Pea pg. 177	<i>Chamaecrista fasciculata</i>	Full sun– partial shade	5a–10b
	Pawpaw pg. 179	<i>Asimina triloba</i>	Full sun– partial shade	5a–9b
	Pink Swamp Milkweed pg. 181	<i>Asclepias incarnata</i>	Full sun– partial shade	5a–10b
	Purple Passionflower pg. 183	<i>Passiflora incarnata</i>	Full sun– partial shade	6b–9b
	Red Buckeye pg. 185	<i>Aesculus pavia</i>	Full sun– partial shade	5a–9a
	Red Maple pg. 187	<i>Acer rubrum</i>	Full sun– partial shade	5a–10b
	Sassafras pg. 189	<i>Sassafras albidum</i>	Full sun– partial shade	5a–9a
	Saw Palmetto pg. 191	<i>Serenoa repens</i>	Full sun– partial shade	8a–11a
	Scarlet Bee Balm pg. 193	<i>Monarda didyma</i>	Full sun– partial shade	5a–9a
	Scarlet Hibiscus pg. 195	<i>Hibiscus coccineus</i>	Full sun– partial shade	8a–10b
	Scarlet Sage pg. 197	<i>Salvia coccinea</i>	Full sun– partial shade	7b–11a
	Seaside Goldenrod pg. 199	<i>Solidago sempervirens</i>	Full sun– partial shade	5a–11a
	Slender Goldentop pg. 201	<i>Euthamia caroliniana</i>	Full sun– partial shade	5a–10b
	Snow Squarestem pg. 203	<i>Melanthera nivea</i>	Full sun– partial shade	7a–11a

	ATTRACTS BUTTERFLIES	ATTRACTS BEES	ATTRACTS BIRDS	SOIL PREFERENCE	BLOOMING PERIOD	DEER- RESISTANT
	yes	yes	yes	moist–wet	midsummer–early fall	moderate
	yes	yes	yes	dry–average	late spring–early fall	high
	yes	yes	yes	dry–moist	early spring– early summer	moderate
	yes	yes	yes	dry–average	spring	low
	yes	yes	yes	moist	early spring	moderate
	yes	yes	yes	average–moist	midsummer–midfall	high
	no	yes	yes	average–moist	midsummer–early fall	moderate
	yes	yes	yes	dry–average	summer–early fall	low
	yes	no	no	moist	spring	high
	yes	yes	yes	moist–wet	summer–early fall	high
	yes	yes	yes	average	late spring–early fall	moderate
	yes	yes	yes	average–moist	spring	high
	no	yes	yes	moist	late winter– early spring	moderate
	yes	yes	yes	average	spring	low
	yes	yes	yes	dry–moist	spring	high
	yes	yes	yes	moist	summer–midfall	high
	yes	yes	yes	moist–wet	summer–early fall	low
	yes	yes	yes	average–moist	summer–fall	moderate
	yes	yes	no	dry–moist	late summer– early winter	high
	yes	yes	no	moist–wet	late summer–fall	moderate
	yes	yes	no	dry–moist	late spring– early winter	high

Southeast Plants at a Glance (continued)









	COMMON NAME	SCIENTIFIC NAME	LIGHT LEVEL	SOUTHEAST HARDINESS ZONE
	Sparkleberry pg. 205	<i>Vaccinium arboreum</i>	Full sun– partial shade	7a–10b
	Spotted Bee Balm pg. 207	<i>Monarda punctata</i>	Full sun– partial shade	5a–10a
	Spotted Water Hemlock pg. 209	<i>Cicuta maculata</i>	Full sun– partial shade	5a–11a
	Spurred Butterfly Pea pg. 211	<i>Centrosema virginianum</i>	Full sun– partial shade	7a–10b
	Starry Rosinweed pg. 213	<i>Silphium asteriscus</i>	Full sun– partial shade	5a–10a
	Sugarberry pg. 215	<i>Celtis laevigata</i>	Full sun– partial shade	5a–10b
	White Wild Indigo pg. 217	<i>Baptisia alba</i>	Full sun– partial shade	5a–9a
	Wild Bergamot pg. 219	<i>Monarda fistulosa</i>	Full sun– partial shade	5a–9a
	Wild Sweet William pg. 221	<i>Phlox maculata</i>	Full sun– partial shade	5a–8b
	Wingstem pg. 223	<i>Verbesina alternifolia</i>	Full sun– partial shade	5a–8a
	Woolly Pipevine pg. 225	<i>Aristolochia tomentosa</i>	Full sun– partial shade	5a–9b
	Yellow Passionflower pg. 227	<i>Passiflora lutea</i>	Full sun– partial shade	5b–10b
	Yellow Thistle pg. 229	<i>Cirsium horridulum</i>	Full sun– partial shade	6a–10b

PARTIAL SHADE TO FULL SHADE

	Calico Aster pg. 233	<i>Symphyotrichum lateriflorum</i>	Partial shade	5a–9a
	Carolina Elephantsfoot pg. 235	<i>Elephantopus carolinianus</i>	Partial shade	5a–9b
	Common Blue Violet pg. 237	<i>Viola sororia</i>	Partial shade	5a–9b
	False Nettle pg. 239	<i>Boehmeria cylindrica</i>	Partial shade	5a–10b
	Flame Azalea pg. 241	<i>Rhododendron austrinum</i>	Partial shade	7a–9b
	Frostweed pg. 243	<i>Verbesina virginica</i>	Partial shade– full shade	6b–10b
	Jewelweed pg. 245	<i>Impatiens capensis</i>	Partial shade– full shade	5a–9b

	ATTRACTS BUTTERFLIES	ATTRACTS BEES	ATTRACTS BIRDS	SOIL PREFERENCE	BLOOMING PERIOD	DEER- RESISTANT
	yes	yes	yes	dry–moist	late spring– early summer	moderate
	yes	yes	yes	dry	late spring–early fall	high
	yes	yes	no	moist–wet	spring–fall	high
	yes	yes	no	dry–moist	late spring–fall	low
	yes	yes	no	dry–moist	late spring–midfall	moderate
	yes	no	yes	average–wet	spring	high
	yes	yes	no	average–moist	late spring– early summer	moderate
	yes	yes	yes	dry–moist	summer–early fall	high
	yes	yes	yes	moist	summer–midfall	moderate
	yes	yes	yes	moist	midsummer–midfall	moderate
	yes	no	no	average–moist	late spring	high
	yes	yes	no	moist	late spring– midsummer	high
	yes	yes	yes	average–moist	spring–early summer	high
	yes	yes	no	moist	early–midfall	moderate
	yes	yes	no	average–moist	midsummer–early fall	high
	yes	yes	no	moist	spring	high
	yes	yes	no	average–moist	summer	moderate
	yes	yes	yes	moist	spring	low–moderate
	yes	yes	no	moist	late summer–fall	high
	yes	yes	yes	moist	summer–midfall	moderate

Southeast Plants at a Glance (continued)

	COMMON NAME	SCIENTIFIC NAME	LIGHT LEVEL	SOUTHEAST HARDINESS ZONE
	Maryland Senna pg. 247	<i>Senna marilandica</i>	Partial shade	5a–9a
	Pinxter Azalea pg. 249	<i>Rhododendron canescens</i>	Partial shade	5a–9b
	Red Columbine pg. 251	<i>Aquilegia canadensis</i>	Partial shade	5a–8b
	Redring Milkweed pg. 253	<i>Asclepias variegata</i>	Partial shade	5a–9b
	Spotted Geranium pg. 255	<i>Geranium maculatum</i>	Partial shade	5a–8b
	Standing Cypress pg. 257	<i>Ipomopsis rubra</i>	Partial shade	6a–9b
	White Prickly Poppy pg. 259	<i>Argimone albiflora</i>	Partial shade	5a–8b
	Wild Blue Phlox pg. 261	<i>Phlox divaricata</i>	Partial shade	5a–8b



American Beautyberry

	ATTRACTS BUTTERFLIES	ATTRACTS BEES	ATTRACTS BIRDS	SOIL PREFERENCE	BLOOMING PERIOD	DEER-RESISTANT
	yes	yes	yes	average–moist	summer–early fall	high
	yes	yes	yes	moist	spring	moderate
	yes	yes	yes	average–moist	spring	high
	yes	yes	yes	dry	late spring–early summer	high
	yes	yes	yes	moist	spring–early summer	moderate
	yes	no	yes	dry–average	summer–early fall	high
	yes	yes	yes	average–moist	spring	high
	yes	yes	yes	moist	spring	high





Common Milkweed



Rattlesnake Master

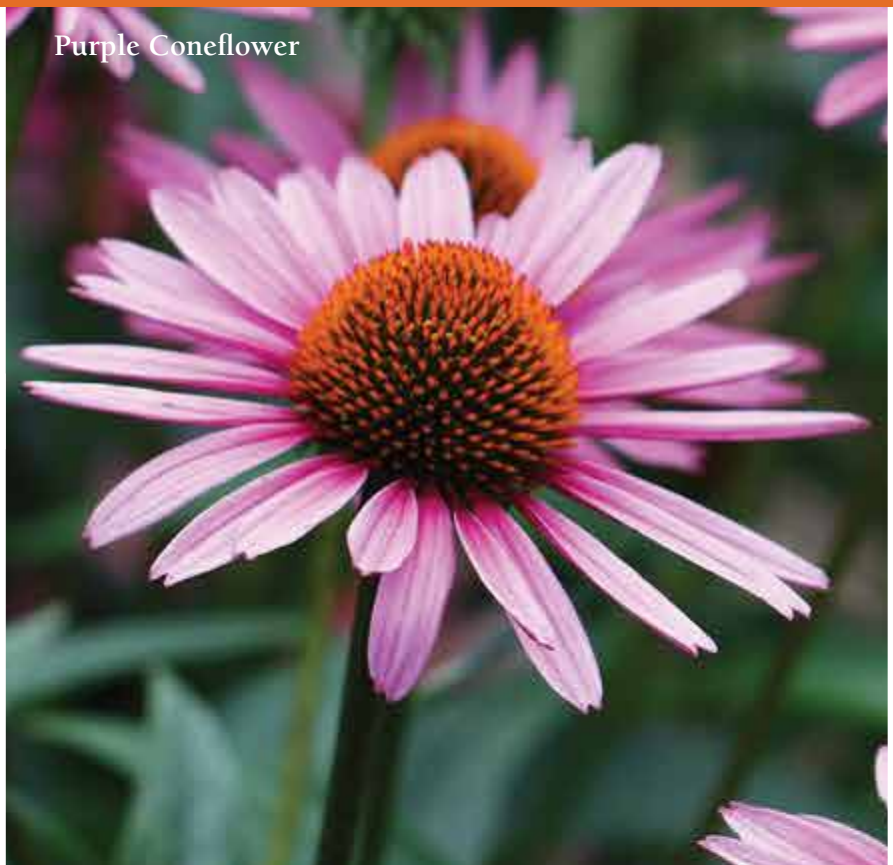
Full Sun



Culver's Root



Pickerelweed



Purple Coneflower



Smooth Blue Aster

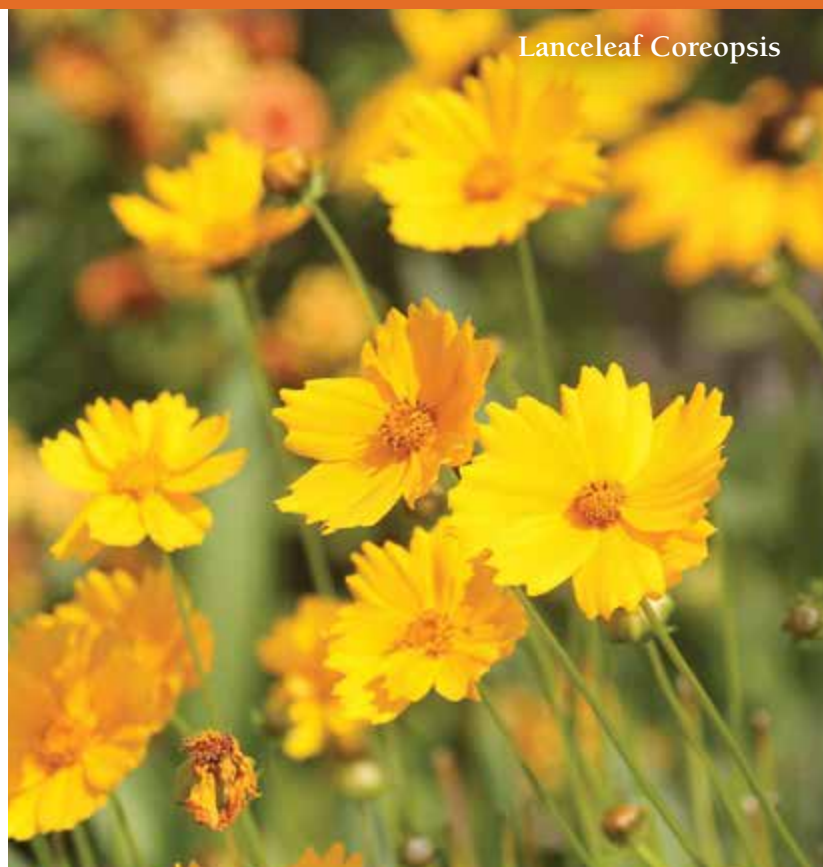


Butterflyweed



Black-eyed Susan

From black-eyed Susan (page 43) to Chickasaw plum (page 127), some of the plants we associate most with pollinators and hummingbirds thrive in full sun. These plants require at least 6 hours of direct sunlight, but that's the minimum. In many cases, they produce larger and more copious blooms if they have more than 8 hours of sunlight, especially during the afternoon hours when the sun is at its strongest.



Lanceleaf Coreopsis



Marsh Blazing Star





Annual Phlox

Scientific Name *Phlox drummondii*

Family Polemoniaceae

Plant Characteristics Upright herbaceous perennial 1–2 feet tall; oblong to lance-shaped green leaves clasp the often-branched stem; both the leaves and stem are covered in soft, glandular hairs that are sticky to the touch; terminal clusters of tubular, five-lobed flowers vary in color from red to pink, lavender and white, often with a contrasting center.

USDA Hardiness Zones 5a–11a

Bloom Period Spring–early summer, occasionally reblooming in the fall

Growing Conditions Full sun and average, sandy, well-drained soil.

Annual phlox is a cheery wildflower that boasts attractive clusters of brightly colored, fragrant blooms. Although native to Texas, it has become naturalized throughout much of the Southeast, where it is frequently planted along roadsides or in fields, meadows, and other open areas. It is particularly showy en masse but is also well suited for smaller garden spaces and even in containers. Also called Drummond phlox, it is a common species found in many wildflower seed mixes. An early-season bloomer, annual phlox begins to decline with the onset of summer heat but readily self-seeds. Pinching back plants and regular deadheading can help prolong the bloom period. While the plant is relatively drought-tolerant, regular moisture will improve performance.

The nectar-rich flowers are predominantly pollinated by butterflies, although sphinx moths may also be attracted.





Azure Blue Sage

Scientific Name *Salvia azurea*

Family Lamiaceae

Plant Characteristics Upright herbaceous perennial up to 5 feet tall; narrow, lance-shaped-to-oval, gray-green leaves on square stems; loose, elongated spikes of tubular, two-lipped, light- to bright-blue flowers

USDA Hardiness Zones 5a–9a

Bloom Period Midsummer–midfall

Growing Conditions Full sun and dry-to-average, well-drained soils.

This is a desirable native salvia for garden use. Aptly named, it produces narrow spires of bright sky-blue, tubular flowers that add color and airy texture to the late-season landscape. Some blooms may be slightly lighter and more powdery blue in color or have the lower lip marked with white. Azure blue sage is easily grown in full sun and prefers drier soil conditions. The clump-forming plants are quite drought-tolerant once established. The tall flower stalks may need some support to prevent flopping over, and the plant can also be readily cut back to promote more compact growth. As with many other wildflowers, regular deadheading can help stimulate and extend blooming. Azure blue sage is an attractive addition to any perennial, cottage, or pollinator garden and is an excellent choice for naturalizing in large meadows or open landscapes.

Attracts butterflies, sphinx moths, bees, and hummingbirds.





Black-eyed Susan

Scientific Name *Rudbeckia hirta*

Family Asteraceae

Plant Characteristics Upright biennial or short-lived perennial (lasting a few years) 1–3 feet tall; leaves are coarse and green; daisy-like flowers are yellow with a dark-brown-to-black center atop stiff, slender stems.

USDA Hardiness Zones 5a–10b

Bloom Period Late spring–midfall

Growing Conditions Performs best in full sun and dry-to-average, well-drained soils; highly adaptable to a wide range of soil types and conditions.

This cheerful and somewhat old-fashioned wildflower is a favorite for many gardeners. A fast-growing and tough-as-nails native, it can tolerate drought, heat, and poor soils. Fertile conditions and regular moisture will enhance growth and performance. Black-eyed Susan is equally easy to propagate by seed and readily blooms in the first year. Ideal for perennial borders, cottage gardens (small, informal, densely packed gardens), or naturalizing, it produces a prolonged floral display and is a terrific pollinator attractor, drawing in a wide array of different insects. It also makes a great cut flower. Dead-heading spent flowers will encourage reblooming. While generally short-lived and often grown like an annual, the plants readily reseed and tend to pop up again year after year. Several commercial cultivars are also available.

Attracts butterflies, bees, and many other insect pollinators.





Butterflyweed

Scientific Name *Asclepias tuberosa*

Family Apocynaceae

Plant Characteristics Distinctive upright herbaceous perennial 1–2 feet tall; narrow and oblong green leaves; flat terminal clusters of flowers are light orange to deep-reddish orange. The plant forms compact, multistemmed, and somewhat arching clumps over time. Plants have deep taproots and cannot easily be transplanted.

USDA Hardiness Zones 5a–10a

Bloom Period Late spring–early summer

Growing Conditions Best in full sun and dry-to-average, well-drained soils. Drought- and heat-tolerant once established and does well in poor soils. Often best cultivated from seed.

This stunning native perennial is an absolute butterfly favorite. Its showy clusters of vivid orange flowers demand attention in any landscape and are highly enticing to a broad range of insect pollinators. It is arguably the most attractive and distinctive member of the genus *Asclepias*. Perfect for sunny, dry locations, butterflyweed is a welcome addition to gardens of all sizes and styles, from smaller, more formal perennial borders to expansive naturalized meadows or open woodlands. Elongated, spindle-shaped seed pods form after flowering and split open when mature to release numerous silky-tufted seeds that readily disperse by wind.

Very attractive to butterflies, bees, and other insect pollinators, as well as hummingbirds; a regular host plant for monarch caterpillars and those of the queen butterfly.





Climbing Hempvine

Scientific Name *Mikania scandens*

Family Asteraceae

Plant Characteristics Twining vine up to 10 feet long; somewhat irregular, heart-shaped green leaves are borne on long petioles; dense, dome-shaped clusters of small, white to slightly pinkish, tubular flowers

USDA Hardiness Zones 5a–10b

Bloom Period Summer–early fall

Growing Conditions Full sun and moist-to-wet, organically rich, moderately well-drained soils.

Climbing hempvine is a common native of mesic forest edges, open thickets, swamps, and other wetland margins. This vigorous, low-growing vine tends to ramble over and twine around other vegetation for support. It thrives in moist soils and full sun but is fairly durable and able to tolerate salt spray and some drought once established. Starting in summer, plants are adorned with a profusion of dense, showy clusters of fuzzy-looking and often pink-tinged white flowers set against the backdrop of broad, dull-green, heart-shaped leaves. The resulting floral display is mobbed by a variety of hungry insect pollinators and well worth a stop to enjoy the circus of visitors. While a bit weedy in appearance, it is a welcome addition to the native landscape. While not typically available from nurseries, climbing hempvine is easily started from seed or simply enjoyed in the wild.

Attracts butterflies, bees, sphinx moths and other insect pollinators as well as hummingbirds. Host for the scarlet-bodied wasp moth.





Common Hoptree

Scientific Name *Ptelea trifoliata*

Family Rutaceae

Plant Characteristics Deciduous tree up to 20 feet tall; leaves are bright green, shiny, and compound, with each having three elliptical leaflets; greenish white flowers grow in terminal clusters.

USDA Hardiness Zones 5a–9b

Bloom Period Spring

Growing Conditions Full sun to partial shade, average moisture, and well-drained soils.

This small but handsome tree often features several ascending and often intertwining branches from the base, making it appear more like a shrub. This ornamental growth habit, combined with a rounded crown, makes it a perfect accent plant for smaller landscapes. The airy flower clusters appear in spring among the leaves, attracting a wide assortment of insects. After flowering, trees produce dangling clusters of distinctive, round, wafer-like, winged fruit, which helps give the species its other common name of wafer ash. (The fruits also bear a passing resemblance to hops, explaining its other name.) The shiny leaves have a strong citrus odor when crushed.

Attracts butterflies, bees, flies, and other pollinators. Serves as a larval host for the giant swallowtail butterfly.





Common Milkweed

Scientific Name *Asclepias syriaca*

Family Apocynaceae

Plant Characteristics Tall, upright herbaceous perennial 2–6 feet tall or more; green leaves are large and oblong; lavender flowers grow in showy, rounded clusters. Common milkweed has a weedy growth habit; it spreads rapidly by rhizomes.

USDA Hardiness Zones 5a–9a

Bloom Period Summer–early fall

Growing Conditions Prefers full sun and dry-to-average, well-drained soils. Tolerant of poor soils and drought.

This native perennial is one of the most widespread and commonly encountered milkweeds throughout the northern half of the eastern United States; within our region, it extends southward into North Carolina and Tennessee. A key larval host for the monarch butterfly, common milkweed is a plant of open areas and can regularly be found in old fields and along roadsides, fencerows, and woodland borders. An aggressive colonizer of disturbed sites, it spreads by both underground rhizomes and airborne seeds, forming extensive colonies. Common milkweed is very easy to grow and fast to establish. The plant is tolerant of poor soil, drought, and neglect. Despite its weedy habit, it is a worthy addition to gardens and larger naturalized or wild spaces, as it adds unique texture and interest. A profuse bloomer, the large, rounded flower clusters smell wonderful and are attractive to insect pollinators. Later in the season, the flowers produce large, elongated, somewhat spiny seed pods that split open at maturity to release silky, tufted seeds that spread via the wind.

Attracts butterflies, bees, wasps, beetles, sphinx moths, and hummingbirds; one of the most important larval hosts for the monarch butterfly.





Common Sneezeweed

Scientific Name *Helenium autumnale*


Family Asteraceae

Plant Characteristics Upright, clump-forming herbaceous perennial 3–5 feet tall; long, lance-shaped-to-elliptical, dark-green leaves with serrated margins on stout, branching, distinctively winged stems; terminal clusters of golden yellow, daisy-like flowers, each with three bright-yellow lobed rays around a prominently domed, darker golden center.

USDA Hardiness Zones 5a–9b

Bloom Period Late summer–mid-fall

Growing Conditions Full sun and moist-to-wet, organically rich soils.



Widespread across the United States from Minnesota to Florida and west to California, this plant has a somewhat unfortunate name stemming from a Menominee Indian practice of crushing dried leaves to produce sneezing. But in a garden setting, this flower is a delightful wetland perennial and won't provoke a trip to the pharmacy for allergy medication. A late-season bloomer, the bright-yellow, wedge-shaped, toothed petals surround a golden-bronze central domed cone, adding a profusion of autumnal color to the landscape. Common sneezeweed is plant of open wetlands, pond and stream margins, wet ditches, and other soggy sites, being intolerant of prolonged drought. Plants are easy to grow and adaptable to sunny garden settings, thriving with regular moisture and fertile soils. Attractive individually or en masse, it is a welcome addition to a rain garden or well-irrigated perennial border and is a good choice for naturalizing in larger wet meadows or perpetually moist areas. Numerous highly attractive ornamental cultivars are available.

Attracts butterflies, bees, and many other insect pollinators.





Cross Vine

Scientific Name *Bignonia capreolata*

Family Bignoniaceae

Plant Characteristics Woody, perennial climbing vine up to 35 feet long or more; large leaves are dark green and compound, each with paired oblong leaflets; long, tubular flowers grow in axillary clusters and are pinkish-orange with a yellow throat.

USDA Hardiness Zones 5b–9b

Bloom Period Late winter–early summer

Growing Conditions Performs best in full sun, average moisture, and well-drained soils.

Highly ornamental, this well-behaved woody vine is a showy and low-maintenance addition to any native or wildlife garden. It is a high-climbing species that readily clings to structures via branching, clawed tendrils; it works well when grown on a trellis, an arbor, a fence, or a brick wall, or simply up a tree. The large, showy, tubular flowers vary somewhat in color and may be red on the outside with an orange or yellow throat. They are very attractive to hummingbirds. Cross vine is tolerant of shadier spots, but flower production is enhanced with increased sun. Several commercial cultivars are available.

Attracts butterflies, hummingbirds, sphinx moths, and bees.





Culver's Root

Scientific Name *Veronicastrum virginicum*

Family Scrophulariaceae

Plant Characteristics Upright herbaceous perennial
4–6 feet in height; pointed leaves are whorled and
scattered along sturdy green stems; small flowers
are white to pale on dense, elongated terminal spikes.

USDA Hardiness Zones 5a–8a

Bloom Period Summer

Growing Conditions Full sun and moist, well-drained,
fertile soil.

This striking native adds elements of elegance and verticality to the landscape. Each sturdy stem bears widely spaced, whorled leaves that give the plant an airy appearance overall. Slender spikes of small, tubular flowers, many reaching 6 inches or more in length, begin to appear in early to midsummer. Additional smaller, branched lateral spikes result in a broad, eye-catching terminal arrangement that somewhat resembles a candelabra. Culver's root is a distinctive addition to sunny wetland edges, moist meadows, and rain gardens, or the back of perennial borders. Plants are long-lasting under ideal conditions but are intolerant of prolonged drought. It is attractive planted individually or en masse. Perfect for naturalizing in wetland, especially in northern portions of the region. Plant Culver's root alongside other colorful, moisture-loving perennials.

Attracts butterflies, bees, and many other insect pollinators.





Elliott's Aster

Scientific Name *Symphyotrichum elliottii*

Family Asteraceae

Plant Characteristics Upright herbaceous perennial up to 4 feet tall; smooth, lanced-shaped, green leaves with serrated margins; terminal branched clusters of lavender-blue, daisy-like flowers with bright-yellow centers.

USDA Hardiness Zones 7a–10b

Bloom Period Mid–late fall

Growing Conditions Full sun and moist-to-wet soils.

Also called marsh American aster, Elliott's aster is a wetland wildflower found from coastal Virginia to Louisiana and throughout much of Florida. While it thrives in moist-to-wet conditions, plants can adapt to various garden soils with consistent irrigation. A late-season bloomer, it produces impressive scepter-shaped clusters of fragrant, bright yellow-centered lavender flowers, each up to 1 inch across. Flowering extends well into late autumn, providing an abundance of resources for pollinators at a time when many other blooms are waning or finished. The flowers regularly attract a wide range of skipper butterflies. Elliott's aster spreads by suckering and can quickly take over smaller spaces—an ideal trait for naturalizing. It can also be used in rain or container gardens for a needed pop of autumnal color.

Attracts butterflies, bees, and other insect pollinators.





Flowering Spurge

Scientific Name *Euphorbia corollata*

Family Euphorbiaceae

Plant Characteristics Upright herbaceous perennial 0.5–3 feet tall; elongated, narrow-to-oblong, gray-green leaves are alternately arranged along the stem; uppermost leaves below the inflorescence occur in a whorl of 3 or more; somewhat airy, flat terminal clusters of small cup-shaped flowers, each with five pure-white petals.

USDA Hardiness Zones 5a–8b

Bloom Period Summer–early fall

Growing Conditions Full sun and dry-to-average, well-drained soils.

This is a charming, high-wildlife-value wildflower of woodland openings, trail edges and forest margins, roadsides, old fields and disturbed sites. The plant boasts handsome gray-green foliage that, like milkweeds, releases a white latex sap if damaged. It is toxic if ingested, and contact may also cause mild-to-severe irritation to skin, eyes, or mucous membranes. Beginning in summer, plants produce a loose profusion of small, delicate-looking, pure-white flowers that attract a wide range of insect pollinators. The resulting seed is readily consumed by both game and songbirds. Flowering spurge is a tough little plant that is highly adaptable to a variety of soil types and conditions, is drought-resistant once established, and has few pest or disease problems.

Attracts small butterflies, bees, wasps, flies, and other insect pollinators.





Goldenmane Tickseed

Scientific Name *Coreopsis basalis*

Family Asteraceae

Plant Characteristics Compact, multistemmed herbaceous annual 1–2 feet tall; green, deeply lobed compound leaves have linear or oblong leaflets; daisy-like flowers are bright golden yellow with dark brownish centers and grow atop erect green stems.

USDA Hardiness Zones 8b–9b

Bloom Period Midspring–early summer

Growing Conditions Full sun and dry-to-average, well-drained soil.

The genus *Coreopsis* is considered the state wildflower of Florida, and it may be hard to imagine a more cheerful and radiant representative. A Deep South species, goldenmane tickseed is found primarily along the Gulf Coast from Texas to North Carolina. It is probably most commonly encountered along roadsides. A bushy annual, it grows rapidly from seed without much difficulty and begins flowering in late spring. The deep-yellow blooms typically continue into the first part of summer before plants set seed and start to die back. Because of its annual life cycle, it can be reliably grown anywhere within our region. Most impressive when planted en masse, it's wonderful for naturalizing in fields, meadows, and other dry, open sites, but it cannot tolerate prolonged wet conditions. (A good alternative for more-mesic sites is *Coreopsis leavenworthii*.) This delicate annual to short-lived perennial wildflower is almost fully endemic to Florida but can be used more broadly throughout the region.

Attracts butterflies, bees, and many other insect pollinators.





Indian Blanket

Scientific Name *Gaillardia pulchella*

Family Asteraceae

Plant Characteristics Compact annual 1–2 feet tall; hairy leaves are entire to toothed and mostly near the plant base; showy, daisy-like flowers have yellow-tipped red petals and contrasting purplish-brown centers and grow atop slender branched stems.

USDA Hardiness Zones 5a–11a

Bloom Period Spring–fall

Growing Conditions Performs best in full sun and dry-to-average, often-sandy, well-drained soil. Tolerates heat, drought, salt, and poor soils.

Also called firewheel or blanket flower, this striking wildflower adds an intense pop of color to the landscape. Its distinctively showy blooms attract a bounty of insect pollinators; songbirds may also feed on the seed from spent flower heads. Indian blanket is excellent for naturalizing in open meadows, roadsides, or dry, open sites. While most striking en masse, it can be used in smaller numbers or even planted individually in cottage gardens, rock gardens, flower borders, or even container settings. Despite being an annual, it prolifically self-seeds and is easy to propagate by seed. Exceptionally easy to grow, it can handle drought, heat, and poor soil but does not perform well in poorly drained sites. It is additionally tolerant of salt and thus a great choice for coastal landscapes. While it thrives in dry, sandy soil, richer soil conditions tend to promote vegetative growth but also poor flower production. Numerous commercial cultivars are also available.

Attracts butterflies, bees, and many other insect pollinators.





Lanceleaf *Coreopsis*

Scientific Name *Coreopsis lanceolata*

Family Asteraceae

Plant Characteristics Compact herbaceous perennial
1–2 feet tall; entire to deeply lobed green leaves;
daisy-like flowers are bright golden yellow and grow
atop erect green stems.

USDA Hardiness Zones 5a–9b

Bloom Period Midspring–midsummer

Growing Conditions Performs best in full sun and dry-to-average,
well-drained soil.

This delightfully cheery perennial is a favorite addition to Southern gardens. A common addition to many wildflower seed mixes, it is an excellent choice for naturalizing in larger open landscapes or along roadsides or utility easements. Plants freely self-seed and can quickly spread to form extensive colonies; plants started from seed will typically flower in their second year in northern portions of the region and occasionally in the first year in southernmost areas. Its compact growth habit makes it equally appealing for smaller gardens, perennial borders, or even container plantings. Exceptionally durable and easy to grow, lanceleaf coreopsis thrives in sunny, well-drained sites and is quite tolerant of heat, drought, humidity, and neglect once established. Naturalized plantings can even tolerate periodic mowing. Plants produce profusions of showy yellow flowers that are beloved by a wide variety of insect pollinators; songbirds readily feed on the resulting seed. Deadheading spent flowers will promote reblooming and help prolong the floral display. Numerous ornamental cultivars are available commercially.

Attracts butterflies, bees, and other insects. A larval host for the wavy-lined emerald moth.





Lanceleaf Fogfruit

Scientific Name *Phyla lanceolata*

Family Verbenaceae

Plant Characteristics Herbaceous perennial up to 1 foot tall; elliptical to lance-shaped green leaves have serrated margins on erect-to-spreading stems; small, terminal, dense, and rounded spikes grow on upright stalks, each with 5 tiny, lobed, light-pink to light-purple flowers with a yellow throat that occur in whorls around the base of the spike.

USDA Hardiness Zones 5a–8b

Bloom Period Spring–early fall

Growing Conditions Full sun and moist to wet, organically rich soils.

Also called northern fogfruit, this is a wildflower of degraded wetlands; moist roadside ditches; and other low, often-disturbed sites. Plants have a sprawling growth habit and spread rapidly with creeping stems that root at the nodes, forming dense colonies over time. Lanceleaf fogfruit can expand aggressively under the right conditions and thrives in perpetually moist sites and full sun. Although not showy, plants produce an abundance of small, rounded flower clusters on upright stalks that superficially resemble a matchstick. The small flowers, which occur in whorls around the base of the spike, attract an abundance of primarily smaller insect visitors including skipper butterflies, native bees, and bee flies. It makes a distinctive addition to a rain garden or wetland border, or as a fast-growing groundcover in larger low, wet areas. It's also an option in containers or hanging baskets. Turkey tangle fogfruit (*Phyla nodiflora*) is a lower-growing alternative in more southern areas of the region.

Attracts butterflies, bees, and flies; larval host plant for the phaon crescent butterfly (Phyciodes phaon).





Lindheimer's Beeblossom

Scientific Name *Oenothera lindheimeri*

Family Onagraceae

Plant Characteristics Upright-to-spreading herbaceous perennial up to 5 feet tall; lance-shaped, green to somewhat gray-green leaves are often tinged or marked with maroon and with coarsely toothed margins; elongated terminal clusters of delicate, 4-petaled, pure-white flowers have long, protruding stamens.

USDA Hardiness Zones 5a–9b

Bloom Period Late spring–midfall

Growing Conditions Full sun and average, sandy, well-drained soils.

Although this wildflower is native to Texas and Louisiana, it can be widely grown across the Southeast. Plants form airy, rounded clumps that add lovely texture and softness to the landscape. Spreading by underground rhizomes, it can form larger colonies over time. It formerly belonged to the genus *Gaura*, which includes a number of somewhat weedy species, including the more widespread Southern beeblossom (*Oenothera simulans*), which is commonly encountered in open, disturbed sites. Like many other evening primrose species, its flowers open late in the day. Lindheimer's beeblossom's wand-like flowers by contrast, bloom during the day. The showy, pure-white flowers open only a few at a time and soon fade to pink with age. The tough plants tolerate heat, humidity, and periodic drought. They thrive in full sun and well-drained soils, being intolerant of poor drainage. Lindheimer's beeblossom is a good addition to any cottage or pollinator garden, perennial border, or container planting and is good for naturalizing in larger informal spaces. Numerous commercially available cultivars vary in form and flower color from white to deep pink.

Attracts butterflies, bees, and other insect pollinators.





Marsh Blazing Star

Scientific Name *Liatris spicata*

Family Asteraceae

Plant Characteristics Upright herbaceous perennial 2–4 feet tall; basal leaves are long, dense, green, and grass-like; small, tubular, pink flowers are densely packed on tall, elongated spikes.

USDA Hardiness Zones 5a–10b

Bloom Period Midsummer–midfall

Growing Conditions Performs best in full sun and organically rich, average-to-moist, well-drained soils.

Arguably the most commercially available blazing star species, this clump-forming perennial is a common addition to perennial borders, cottage gardens, rain gardens, or pollinator gardens. A plant of wet flatwoods, bogs, savannas, and soggy meadows, it thrives in sunny, moist sites but adapts well to home landscapes and can easily be grown in rich garden soil if regular moisture is provided. It is also a superb species for naturalizing and looks particularly spectacular when planted en masse. Marsh blazing star boasts dense, mounding, grass-like foliage that is perfect for creating soft texture in the landscape. Later in the summer, plants produce stout stems that terminate in elongated, wand-like spikes, some 2 feet long. These spikes bloom from the top down, resulting in an explosion of pink flowers. Also called dense blazing star, it has several readily available cultivars that vary in color and form. Many other native blazing star species occur throughout the Southeast that differ widely in their habitat preference. All are pollinator magnets and worth your attention.

Attracts hummingbirds, butterflies, bees, and other insect pollinators.



RETAIL SOURCES OF SOUTHEAST NATIVE SEED AND PLANTS

Audubon Native Plants Database

www.audubon.org/native-plants

512-232-0100

(Searchable database returns links to local retail suppliers.)

Ernst Seeds

www.ernstseed.com

8884 Mercer Pike

Meadville, PA 16335

800-873-3321

Florida Association of Native Nurseries

www.fann.org

321-271-4885

(Click “Retail Nurseries” on the homepage for more information.)

Florida Wildflower Foundation

www.flawildflowers.org/planting/#!/sources

225 S. Swoope Ave., Ste. 110

Maitland, FL 32751

407-622-1606

Georgia Native Plant Initiative

botgarden.uga.edu/conservation-science/georgia-native-plant-initiative

(Click “Native Plant Nursery List” for retail resources.)

Lady bird Johnson Wildflower Center, National Suppliers Directory

www.wildflower.org/suppliers/associates.php

Roundstone Native Seed, LLC

www.roundstoneseed.com

9764 Raider Hollow Rd.

Upton, KY 42784

888-531-2353

COOPERATIVE EXTENSION SERVICE

Nearly every county in the U.S. has an extension office, where experts from state universities provide scientific knowledge and expertise to the public on various topics, including natural resources, agriculture, and horticulture. They are often excellent resources for gardeners and those planning a native garden. The National Pesticide Information Center maintains an interactive directory of extension offices across the country at: <http://npic.orst.edu/pest/countyext.htm>

NATIVE PLANT SOCIETIES

The American Horticultural Society provides a directory of native plant societies in the U.S. and Canada: www.ahsgardening.org/gardening-resources/societies-clubs-organizations/native-plant-societies

BOTANICAL GARDENS AND ARBORETUMS

The American Horticultural Society maintains an interactive directory of U.S. botanical gardens and arboreturns, which is searchable by zip code at: www.ahsgardening.org/gardening-programs/rap/the-garden-guide

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About the Author



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