



A Gardener's Glossary

White Flower Farm

PLANTSMEN SINCE 1950

Glossary

A list of commonly used garden terms, listed in alphabetical order

Annuals

Annuals are plants that grow, flower, set seed, and die in a single season. (They are unlike perennials, which return year after year.) We also apply the term “annuals” to what are more accurately called “tender perennials,” plants that are hardy in some areas but which cannot survive year-round in others. Because annuals grow vigorously in a single season, with many flowering varieties offering a nonstop profusion of blooms, they are commonly used in outdoor containers, to fill empty spaces in garden beds with drifts of color, for cutting, and to support pollinators.



Bareroot Plants

Bareroots are exactly what the term would imply: a healthy division of a mature plant that includes a portion of its roots (minus most or all green growth and soil) and a portion of the crown (the point where a plant's roots meet its stems). Depending on the type of plant, these bareroots appear in a broad array of shapes and sizes—from the knobby chunks of a *Liatris* to the mass of wispy trailing roots and chunky woody crown of an *Astilbe*. Bareroot plants don't look like much on arrival, but they are the beginnings of beautiful and vigorous additions to your garden. Most bareroots are shipped packaged in damp sawdust or shredded paper. Plant them as soon as possible upon receipt or keep them in a cool, dark place (such as a basement or a closet) for up to 2 weeks.

To plant bareroots:

- Remove and discard the packaging material
- Save the plant tags, which provide helpful information and may also serve to mark a planting site
- Soak bareroots in water for 1 hour to rehydrate them, then plant at the depth recommended on the plant tag
- Water thoroughly to settle the soil and eliminate air pockets
- Depending on when bareroots are planted, they will take some time to settle in and develop root systems. Do not water again until active growth begins unless there is no natural rainfall for an extended time

If your bareroot is planted in spring, it will gradually begin pushing up top growth and you'll see the emergence of leaves and stems as the plant begins to grow above ground. If your bareroot is planted in fall, it will develop a good root system and may send up a few leaves before going dormant for winter. Top growth will emerge in spring as the days grow longer and sun warms the soil.

Bareroot plants may seem intimidating at first, but the ease of planting them and their vigor once settled will win you over in no time. In the span of a single season, bareroots become established plants that are poised to perform like champs in your garden.

Among the advantages of bareroot plants is that they can be planted in any weather, they do not need to be acclimated to the outdoors as potted plants do, and they often have a larger root system than will fit into a small pot.

Biennials

A biennial is a plant that completes its life cycle in two years. In its first year, it puts forth leaves, while in its second, it blooms, develops seed, and dies. If allowed to self-sow in the garden, a biennial produces seedlings that may continue to grow in subsequent years. Some of our favorite biennials include Foxgloves (*Digitalis*), Hollyhocks (*Alcea*), Mullein (*Verbascum*), and Sweet William (*Dianthus*, also called Pink).

Compost

Composting is a ritual for most experienced gardeners who rely on it to add organic nutrients and beneficial microbes to the soil and help condition it. Compost is dark in color and crumbly in texture. It is a nutrient-rich blend created from dry, carbon-rich “browns” and moist, nitrogen-rich “greens.” Brown carbonaceous materials include dried leaves, sawdust, wood chips, straw, shredded paper. Nitrogenous “greens” aren’t necessarily that color. They include fruit and vegetable scraps, grass clippings, seed-free weeds, spent flowers, and other green garden waste, rotted manure, and coffee grounds. These organic components are gathered in a pile outdoors, ideally in alternating layers, and either left to decay naturally over time or periodically turned to speed up the process of transforming it into what many like to call “black gold.” Compost *feeds the soil* naturally and organically, which, in turn, nourishes garden plants. Gardeners who add compost to their gardens usually do not need fertilizers.

Commercially produced compost is available in bulk or in bags at garden centers, hardware or big box stores. But composting at home is a great way to turn yard waste into a valuable resource. Whether you just make a pile in a corner somewhere, build a three-part bin (with compartments for fresh materials, those that are “cooking,” and one for “ready” compost) or use a closed manufactured plastic product, whatever you can produce at home will reduce your yard waste and enrich the soil in your garden.

For more information about composting, visit [WhiteFlowerFarm.com/how-to-compost](https://www.whiteflowerfarm.com/how-to-compost)

Crown

The crown of a plant is the point at which the stem(s) meet the roots.

Cultivar

In simplest terms, a cultivar is a plant that has been man-made through selective breeding. (The term itself is a combined form of the words *cultivated* and *variety*). Cultivars generally result from a grower’s desire to isolate and replicate specific desirable traits, whether it be an earlier bloom time, a larger flower, a foliage color, or some other characteristic. In written form, cultivar names follow the two-part Latin construction that identifies each plant by its genus and species. For example, *Iris pallida* ‘Variegata’ is a cultivar of Sweet Iris (*Iris pallida*) that has lovely green- and white-striped (or variegated) foliage. Its cousin *Iris pallida* ‘Variegata Aurea’ is a distinctly different cultivar of Sweet Iris that offers gold- and green-striped blades. Cultivars add incredible diversity to the horticultural trade, and they illustrate the vast genetic variation inherent in a single species of plants.

The following examples diagram the component parts of plant names:

Iris [genus] *pallida* [species] ‘Variegata’ [cultivar]

Hydrangea [genus] *paniculata* [species] ‘Bobo’ [cultivar]

Carex [genus] *oshimensis* [species] EverColor® [brand name of series] ‘Eversheen’ [cultivar]

Deadheading

Deadheading a plant means removing its spent blooms. This may be done to tidy the plant's appearance, encourage a second flowering of reblooming varieties, or prevent seed formation and unwanted seedlings. Some plants, such as Dahlias, blossom steadily and more abundantly if deadheaded regularly. Other plants, including reblooming varieties of *Iris germanica* (Tall Bearded Iris), flower in flushes with one round of blossoms in spring and another in fall under the right conditions.

Genus

A genus is a grouping of living things that are closely related to each other. More specifically, it is the first of a two-part hierarchy for the identification of plants and animals established by Swedish naturalist Carolus Linnaeus in the 18th century. In this system, every organism has a scientific name comprising two words in Latin (always italicized): the first identifies the genus, or kind, and the second word (together with the first) identifies the species (see *Species*, below). For example, Irises make up the genus *Iris*, of which there are more than 300 distinct species. You may be familiar with the colorful Tall Bearded Irises popular in gardens in springtime (*Iris germanica*). They are a species within the genus *Iris*. Likewise, a related plant is called the Sweet Iris (*Iris pallida*). While similar in many ways to the Tall Bearded Iris, there are differences, including fragrance and a tendency to produce variegated foliage, that make this one a unique species. Yet both Irises, generally speaking, are the same kind of plant—the same *genus*.



Hardiness Zones

The first order of business when selecting any plant for a garden is to know if it is hardy in your area. So-called “hardiness zones” are assigned by the U.S. Department of Agriculture (USDA), which uses average low temperature readings to map temperature ranges across the continent.

USDA hardiness zones range from 1 (coldest) to 13 (warmest). For greater accuracy, each is further divided into “A” and “B,” with A being colder than B. A single state—and even a town—may have different hardiness zone designations due to elevation or proximity to water. This means that a fellow gardener who lives across town from you may not be in the same hardiness zone.

Finding your hardiness zone is as easy as looking at a map and plugging in your zip code. The USDA maintains and regularly updates its color-coded *USDA Plant Hardiness Zone Map*. You will find it here: <https://planthardiness.ars.usda.gov>. Using the map’s zooming features, you can even locate your specific street. This feature is especially useful if you live in a region with complex climactic conditions such as the Pacific Coast, the Southeastern Coastal Plain, or near or in any mountain range.

You also may find your zone easily via the WhiteFlowerFarm.com home page, **WhiteFlowerFarm.com**. We rate zones broadly by zip code. In the *Find Hardiness Zone* box near the top, enter your zip code and click ‘lookup.’ Our site will identify your zone and flag plants on our website that are hardy in your area, differentiating between southern and western zones (ex: Zone 4-8S/9W). It will also let you know when a chosen plant is out of your zone. (Gardeners living at high elevation should consider themselves in one zone colder than indicated.)

Humus

Humus (pronounced *HYOO-mus*) is decomposed organic material that occurs naturally in soil when plant matter, such as leaf litter, and the remains of animals, including bones and carcasses, decay. It is also the first or top-most layer of soil, sometimes referred to as *topsoil*. It is dark brown or black in color and contains many nutrients, such as nitrogen, which help to nourish plants. Humus improves the overall quality of soil, allowing water and air to pass through while facilitating the retention of moisture and providing avenues for oxygen to reach the plant roots.

Mulching

Mulching is the practice of spreading a layer of organic matter such as shredded bark, wood chips, dried Pine needles (also sometimes called Pine straw), or grass clippings around the plants in your garden. Cocoa bean shells, buckwheat hulls, or other byproducts can also be good options. Mulch serves many purposes. It reduces weed seed germination, creates shade over plant roots, regulates soil temperature, preserves moisture in the soil, and can add aesthetic appeal. As organic mulch materials decompose, soil fertility and structure are improved.

Mulch is generally applied in spring, after the soil has warmed somewhat, perennial plants have emerged, and annuals have been planted. Sometimes a touch-up application is needed mid-season or in late autumn. In colder climates, mulch evens out temperature swings, which helps to prevent frost heaving. For best results, keep mulch away from plant stems, trunks, or crowns. (Mulch *around* the plants, not on top of them. This helps to avoid smothering them and discourages fungal diseases.)

Mulch may be purchased in bulk from local nurseries or distributors. It is also available in bags at garden centers, hardware and big box stores. It pays to choose a reliable brand. Inferior labels may contain weed seeds or invasive plant rhizomes or ground-up construction debris that can include chemicals or heavy metals that may be harmful to plants, people, or wildlife. Look for a brand that offers undyed mulch made from natural ingredients. Dyed mulches may cost more, but that doesn't mean they are better. There is some evidence that dyes leach into the soil, adversely affecting soil chemistry and beneficial microbes, even plants. But it is the wood itself—recycled scrap lumber of unknown origin that can contain toxic materials—that is of more concern. For another alternative, consider creating mulch from organic matter you find in your own backyard. Autumn leaves, Pine needles, and wood chips from downed trees all make terrific mulch. Repurposing them in your garden spares you the trouble of disposing of them as yard waste. Pea stone or small-sized gravel can also be an attractive and effective mulch, especially for plants such as Lavender that grow best in sunny, dry conditions and resent moisture on their leaves.

Native Plants

A native plant is one that originated in a given area rather than being introduced by humans. Native plants evolved over time in a specific habitat and region along with co-evolved animals, insects, fungi, microorganisms, and other plants. Animals, birds, and insects that evolved with these plants have developed complex interrelationships and dependencies. While native wildlife depends on native plants for food, shelter, and nest-building materials, the plants in turn depend on their co-evolved companions for pollination services and seed dispersal.

Native plants should be considered bulwarks of regional biodiversity and essential to combatting species loss. Additionally, their rugged, adaptive nature makes them useful in sites that might challenge other plants. Native plants are both ornamental and functional additions to any garden.

Perennials

Perennials are plants that return year after year in the areas where they are hardy. (See Hardiness Zones, above.) Although shrubs, trees, and bulbs also have perennial life cycles, those we refer to as “perennials” are properly called “herbaceous perennials” because they die back to the ground completely at the end of the growing season, then send up fresh growth the following spring. Herbaceous perennials offer tremendous diversity in color, form, bloom time, size, texture, foliage, light and soil requirements, and fragrance. Their rugged, carefree dispositions make them ideal for beginning gardeners. Most of the varieties we offer are hardy in Northern climates, and many establish substantial crowns and root systems that help them tolerate heat and drought. Perennials are considered the essential building blocks of many borders and beds, and they are beloved by gardeners who rely on them for repeat performance year after year.

Rootbound

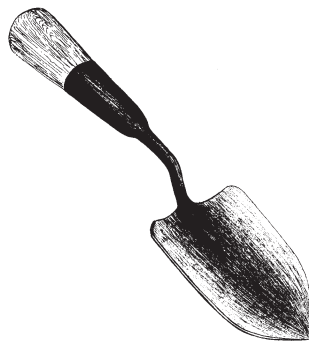
A rootbound plant is one that has generally been confined in a pot until its roots have grown around and around themselves, essentially forming a tight basket beneath the crown. If a rootbound plant is transferred to the soil as is, it may starve for water and nutrients because the roots are being strangled. Help your rootbound plant by gently loosening the ‘basket’ of roots. Begin by using your fingers to separate roots like strands of hair or untangle them with the tip of your pruning shears or a hori hori knife. If that doesn't work, use the edge of a trowel to make a few gentle cuts in the root ball, freeing some of the cut ends or snip through the tangle with a sharp knife or pruning shears.

Soil Testing

Testing your garden soil is not a requirement (some of us at the farm have never done it in our home gardens while others swear by it) but doing so can provide a wealth of useful information.

The best way to have your soil tested is to contact your local extension service. You will be given simple steps that generally require submitting a soil sample and waiting for results.

Having your soil tested is a good way to know what soil type you have, what its pH is (how acidic, alkaline, or neutral), the percentage of organic matter, and more. Essential nutrients (calcium, magnesium, phosphorus, and potassium) will be graphed, letting you know if your soil is deficient of any or if any one element is excessive. Amounts of important trace elements will also be listed. The soil test tells you whether you need any fertilizer and, if you do, which specific mineral to apply. We urge you to test your soil before adding fertilizer because any elements that are in excess of what plants can take up will run off and pollute local waters. (Phosphorous runoff is a common and serious cause of water pollution. Many states also test soil for lead levels, which is especially important if you live in an old house that may have leached lead paint into the ground and you plan to grow food or garden with children.)



Soil pH

The abbreviation pH, or “potential of hydrogen,” is a measurement of the concentration of hydrogen ions in a substance, which in turn defines its acidity or alkalinity. Soil pH ultimately determines the availability of nutrients for uptake by plant roots and, therefore, directly affects a plant’s ability to thrive.

The pH scale ranges from 0.0 to 14.0, in which anything below 7.0 is acidic and anything above 7.0 is alkaline (or basic). A measurement of 7.0 is considered neutral. Most soils exhibit a pH range between 4.0 and 8.0.

Nature has given gardeners plants that will thrive at nearly every pH level. Some tolerate acidic, neutral, or alkaline soils, some manage quite well in all three, and others require a particular narrow pH range. The majority of plants tolerate a range on either side of neutral. Few plants tolerate very acidic soil (<5.0 pH), although some require it.

- Among the plants that like acidic soils are: Azalea, Blueberry, Fothergilla, Mountain Laurel, Rhododendron, and Wintergreen.
- Among the plants that like alkaline (“sweet”) soils are: Boxwood, Clematis, Dianthus, Hellebore, and Lilac.

The tolerance of plants to varying degrees of pH is an important factor when choosing varieties for specific sites. While it is possible to amend the pH of soil, it is difficult to make continual, permanent change. We recommend testing your soil pH and, once it is known, making thoughtful plant choices before trying to change it.

It is also important to note that many of us live in increasingly built-up or urban environments. The soils in our gardens are often near foundations, sidewalks, or paved areas. Due to the limestone in concrete and other building materials, these soils tend to have a higher (more alkaline) pH. Proper plant selection is critical to getting plants to succeed in these areas.

Species

A species is a grouping of living things that are even more closely related to each other than those at the genus level (see *Genus*, above). Members of a species have similar external characteristics as well as the ability to interbreed and create offspring successfully. In botanical names, the second Latin word in each two-part phrase pertains to the species. For instance, the genus *Iris* comprises more than 300 species including the Tall Bearded Iris (*Iris germanica*), Siberian Iris (*I. siberica*), and Japanese Iris (*I. ensata*). When a Tall Bearded Iris develops seed, that seed will eventually produce another Tall Bearded Iris, and so on.

Sun Exposures

Every plant on the planet has a preferred level of sun exposure. Like people, some love to bask in direct sunlight for hours a day while others would wilt or fry to a crisp without cover, or, in gardener's terms, shade. Listed below are the three exposures that are used in the nursery business to define most plants' preferences. When considering sun exposure for your plants, it is also critical to factor in the intensity of the sunlight. A hot sunny garden in southern states has an intensity that is much higher than, say, a hot sunny garden in the Northeast. Situate your plants in their preferred exposure but watch them to see how they manage the specific intensity of light in the various parts of your yard.

- **Full Sun**

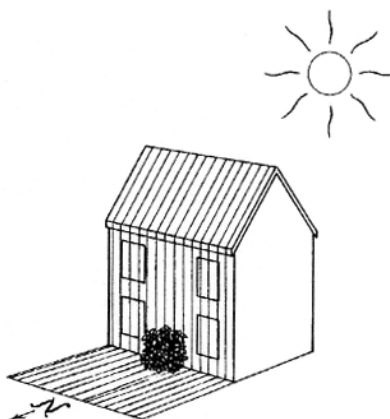
Full sun is defined as 6+ hours of direct sunlight per day.

- **Part Shade** (also referred to as **Part Sun**)

Plants that prefer part shade (or part sun) do best given 3 to 4 hours of direct sunlight per day. (The light may come at different times with some in the morning and some in the afternoon or it may come in a single stretch, but the total should equal 3 to 4 hours.) The balance of the daylight hours may expose them to bright indirect, dappled light, or shade.

- **Shade**

Shade-loving plants do best given bright reflected or dappled light but very little to zero hours of direct sun per day. These plants thrive in the filtered light that sneaks through an overhead canopy of leaves and in the shadow of other taller plants or structures that shield them from the sun.



Weeds

There should be an expression in the gardening world: “One gardener’s weed is another gardener’s treasure,” because many weeds are valuable plants in certain situations. Loosely defined, a weed is any plant you don’t want in your garden or yard. Another characteristic of many weeds is that they tend to proliferate like mad, making themselves a royal (and sometimes back-breaking) nuisance. But weeds also tend to be hardy, fuss-free, sometimes native plants that have roles in supporting biodiversity and local ecology. The Dandelions you don’t like to see in your lawn are a key early-spring source of food for many pollinators. (Dandelion greens are also delicious in a salad.) Thorny Thistles that volunteer in your garden can be highly ornamental. Their seeds are a welcome snack for birds, especially goldfinches (although you may want to deadhead to prevent too many seedlings). Pokeweed, with its drupes of dark purple berries in fall, is stunning in cut flower arrangements. The leaves of Lamb’s Quarters are delicious cooked. Garlic Mustard makes a tasty pesto.

Weeds can also be a clue about the type of soil and growing conditions you have in your garden. The presence of Sorrel indicates acidic soil. Stinging Nettles (another delicious cooked green) grow in damp soil. Pineapple Weed announces crusty compacted ground. Many of our most common weeds, such as Lamb’s Quarters and Chickweed, appear in loose, fertile soil that has been cultivated or disturbed. Overwatering, overfertilizing and tilling (i.e. disturbance) create the conditions these weeds favor. We cultivate weeds as we cultivate our gardens.

Here at the farm, we tend to selectively encourage some “weeds” (Violets and Verbascums are almost always welcome) while immediately removing invasive plants that take over the garden and beyond (rampaging Garlic Mustard, invasive Japanese Knotweed, Oriental Bittersweet, and Multiflora Rose are several we always remove). Invasive plants are prolific non-native spreaders that displace native plants growing in natural areas, destroying habitat. Being able to identify the weeds in your garden helps you decide which should stay and which must go. There are several garden apps and plenty of books that can help you identify plants.

Your local extension service can also help you identify weeds and provide tips on how to garden with (or without) them.

