

Understanding How Plants Are Defined

As we always emphasize, we're trying hard to provide you with some basic education. In this case it's as to some of the common ways plants are defined. We are not trying to teach a university course. The information is placed here as a service, not as a dartboard. Those who want to argue the finer points can take their darts (and their condemnations) elsewhere.

Leaf Holding Tendencies

One type of plant description is that of a plant's leaf holding tendencies in winter. This is commonly broken down into three categories that I'll try to define:

Evergreen – An evergreen retains most of its leaves over the winter. That is not to say they do not shed: most do, but they hold on to at least the current year's new leaves.

Semi-Evergreen – These hold on a portion of their leaves, usually hovering in the 20-40% range (as a wild estimate). To toss a monkey wrench into it, semi evergreens placed into a warmer region can act almost like evergreens, or sited in colder regions can act almost deciduous, and still remain perfectly healthy and viable.

Deciduous – Deciduous plants lose (drop) 90-100% of their leaves in winter.

There are clear differences in the way the types manufacture and store their food. An evergreen is such because it must continually manufacture its own food, even when it appears dormant in winter. An evergreen stores very little food for itself. The chlorophyll (green) reacts with sunlight to make its own food. That explains why if you were to cut all the leaves from an evergreen it would struggle or die. Deciduous plants manufacture their food when they have leaves, but also store food, sending large quantities back into their woody, crown and root parts in fall. They live from this stored food during winter, and also use it as energy to push out the initial burst in spring, when it can once again start processing food from green leaves.

Wood Longevity

Another description depicts the long range viability of a plant's above-ground woody parts. We break these into:

Shrub – Shrubs have long lived woody tops. This wood remains viable and fruitful for three or more (usually way more) years.

Sub Shrub – Sub shrubs are those in-between types that don't die back completely but grow wood that, because of its cellular structure or lesser degree of hardiness, is short-lived. Sub shrubs tend to be hardy in their roots and the thickest parts of their lower stems and crowns. Examples of these are *Caryopteris*, *Buddleia*, *Lavender*, *Perovskia* and so on.

Perennial – These have tops that are herbaceous, soft and non-woody. Their tops die back completely in winter to the roots or crowns. (By the way, a biennial acts like a perennial but only lives a couple years.) For added confusion, we tend to use loose interpretations, classifying certain plants that are woody but not shrubby (trumpet vine, clematis, etc.), as perennials instead of shrubs. Technically, they are perennials because they live for years, but they also carry woody tops. Now I'm confusing myself.

Overall Plant Longevity

This defines how long a plant lives.

Annual – An annual is a non-hardy plant that lives for one season only. However this classification is somewhat related to climate. Some annuals can be placed into warm environments where they act like perennials, sometimes living for years.

Biennial – This is a hardy plant that generally only lives two years. They tend to concentrate on growth development their first year, then concentrate on flowering and seeding the second (final) year. The most widely used biennial in the U.S. is the Pansy. Other examples would be cabbage, spinach and so on.

Perennial – The perennial is a plant that lives three years or more. We think of perennials as only herbaceous plants like daffodils and bleeding hearts, but technically, an oak tree is also a perennial. The variation in longevity of perennials is wide. Cytisus, Gaillardia and Scabiosa generally live for about five years. Oaks and Peonies can live three hundred years.

Leaf Type

A further description of plants depicts the types of leaves they have:

Broadleaf – Broadleaf plants include most deciduous shrubs, Azaleas, Rhododendrons, Hollies, Lilacs, most perennials and so on.

Narrowleaf – Narrowleaf plants include most conifers (Pine, Spruce, Juniper, Cypress, etc.) and grass like plants such as corn, turf, Miscanthus, and so on.

The chemistry workings of narrowleaf and broadleaf plants work differently. That explains why, for example, you can apply a herbicide for dandelion (a broadleaf) and spray it right over the top of turf (a narrowleaf) without damaging a single blade of grass.

If I'm confusing you, don't feel bad: I'm confusing myself. Send us your questions and we'll try to clear the matter up.