

## PLANT DIVISIONS

The plant kingdom has numerous divisions and subdivisions, most of which are of interest mainly to scientists. The layman's interest begins at the level of the plant family, of which there are about 300.

**FAMILY.** The family is composed of one or more genera (plural of genus) having a number of similar characteristics, especially in their reproductive structures. (Several examples of plant families are listed later).

Family names always end in -ae (pronounced ee), or in -aceae (pronounced ay-sa-ee), which mean "belonging to."

Family names are often derived from one prominent member of the family, such as *Rosaceae* and *Liliaceae*, or sometimes by a characteristic of members of the family, such as *Umbelliferae*, meaning "bearing umbels," since the flowers of all members grow in flat-topped umbels (see glossary), or *Cruciferae*, meaning "cross-bearing," since the flowers of all members are in the form of a cross.

**BOTANICAL NAME.** A plant's botanical name is composed of two parts—the genus and species. This is the binomial system of plant nomenclature devised by Carolus Linnaeus in the 18th century, when he classified and named the whole known plant and animal kingdoms, thus creating an orderly system out of chaos. His names were so aptly chosen that many of them are still used today.

**GENUS** is a group or category of plants more like each other botanically than any other group.

The genus is always a noun.

The genus is always capitalized.

Plural of genus is genera.

Adjective of genus is generic.

Correctly there is no difference between the singular and plural of a genus name, for instance:

1 Narcissus or 5 Narcissus

1 Rhododendron or 5 Rhododendron

(although in common parlance it is permissible to use a plural form).

**SPECIES** is a specific division of a genus, sometimes describing some feature of the genus.

In current usage the species is always written with a small initial.

The species is often an adjective.

The word species is the same singular and plural, for instance: 1 species or 5 species.

The botanical name of a plant (genus and species) is always printed in italics or underlined. The gender of genus and species must agree.

Example: *Magnolia grandiflora*

Magnolia is the genus

grandiflora is the species

When a listing of a number of species of a genus is given, the genus is not repeated after the first name, but is indicated by its initial. For instance:

*Ilex aquifolium*, *I. opaca*, *I. cornuta*, *I. crenata*

*Pinus strobus*, *P. sylvestris*, *P. parviflora*, *P. thunbergi*

**SUBDIVISIONS OF SPECIES.** Variety is a subdivision of a species, but is not a part of the botanical name. It is incorrect and confusing to call a plant by its variety name alone. Do not confuse species and variety.

There is a distinction between wild variety and cultivated variety, or "cultivar":

A wild variety (or botanical variety) is a plant which comes true to its characteristics from seed in nature. Its name is always in Latin form and written with a small initial and in italics.

Example: *Cedrus atlantica glauca* or  
*Cedrus atlantica* var. *glauca*

Cedrus is the genus  
atlantica is the species  
glauca is the variety

A "cultivar" (derived from *cultivated variety*) is a plant which has been cultivated in the greenhouse, nursery, or garden for a particular characteristic or set of characteristics by selection or hybridization and which has been maintained in cultivation for these particular characteristics.

The "cultivar" name is spelled with a capital initial and is set apart by single quotation marks. If the cultivar name is in Latin form it must agree in gender with the genus. However, since 1959 it has been required that the cultivar name be a "fancy" name, not in Latin form.

Example: *Malus floribunda* 'Gorgeous'

Malus is the genus  
floribunda is the species  
'Gorgeous' is the cultivar

Cultivars have been known for centuries, but not by that name. In the 1920's Dr. Liberty Hyde Bailey, the renowned American botanist and horticulturist, proposed that this term be adopted, but it was not commonly used until the 1950's. Now the improvement of cultivars is a major goal of plant breeding.

**HYBRID.** A hybrid is a plant resulting from a cross between two different species or well-marked varieties within a species. Such hybrids are usually given a collective name in Latin form and are preceded by a multiplication sign.

Example: *Clematis* x *jackmanii* (Jackman Clematis) is a hybrid resulting from the crossing of *Clematis lanuginosa* and *C. viticella*.

From the above cross various cultivars have been selected and are given fancy names and may be listed as *Clematis* x *jackmanii* 'The President,' or merely *Clematis* 'The President.'

There are other hybrids such as ones between different genera, but discussion of these is beyond the scope of this booklet. Also beyond the scope of this booklet is discussion of other terms such as sub-species, clonal varieties, grafts, mutations, etc.