



Toronto Master Gardeners

Toronto Master Gardeners are trained volunteers dedicated to providing horticultural information to the public.

For answers to horticultural questions contact the Toronto Master Gardeners' Info Line at the Toronto Botanical Garden (416) 397-1345 (Mon. to Fri. 10 a.m. to 1 p.m. and Sat., Sun. and Holidays noon to 3 p.m.) or our website, www.questions.torontomastergardeners.ca.

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Toronto Botanical Garden

Toronto Botanical Garden is a volunteer-based, charitable organization whose purpose is to inspire passion, respect and understanding of gardening, horticulture, the natural landscape and a healthy environment.

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Understanding Plant Nomenclature

Description:

Linnaeus created the current system of plant classification and naming around 1753. He devised the binomial system of nomenclature (a system of naming). This means that all plants have at least two names attached to them - the genus and the species names. In addition, a plant may also carry a variety or cultivar name or both.

This fact sheet describes how plants are named.

Genus

This term is used for a closely related and definable group of plants consisting of one or more species. Classification is usually based on similarities of flower and fruit but can include other plants as well. The genus, *Rosa*, has between 100 to 200 species whereas the genus *Ginkgo* has only one.

The genus name is always the first in the string of plant identifiers and is therefore always capitalized and italicized as in *Cornus*.

Species

The term 'species' is generally thought to mean a kind of plant that is distinct from others by a significant feature that has succeeded through generations in an identifiable way. In practice, species are difficult to categorize because, in nature, there is much variation in patterns of growth.

A species name is always written in lower case and italicized immediately following the genus name, as in *Cornus florida*.

Varieties (or Botanical varieties)

The term "variety" is used to describe a group or class of plants that is subordinate to a species. This is a botanically recognized group. It is usually used to describe naturally occurring variations, as seen in nature that are inheritable by succeeding generations. Humans do not create varieties.

Variety names are always written in lower case with the species as in *Cornus florida rubra* or *Cornus florida var. rubra*.

Cultivars (cultivated variety) and groups

Cultivars and groups are sub-categories of plants that have been created by humans and are recognized horticulturally. The term 'cultivar' is used to identify discrete populations bred by plant breeders and maintained in cultivation, as opposed to plants that occur and perpetuate themselves in the wild.

Cultivar names are written with single quotes around them. Each word is capitalized but not italicized, as in *Cornus florida rubra* 'Cherokee Chief'.

According to the rules of the International Code of Nomenclature for Cultivated Plants, cultivars named after 1959 cannot be given Latin-form designations. They must have modern language names.

Plants that form part of a group are given a particular name that is capitalized but not italicized and has no inverted commas, as in *Fagus sylvatica Purpurea*.

Hybrids

Hybrids can occur in the wild or in cultivation. When two species cross in nature or are crossed in a greenhouse, and the union results in a distinct plant, it is called a hybrid. An 'x' in

a plant name signifies a hybrid. For example, *Magnolia x loebneri*, is a cross between *M. kobus* and *M. stellata*, made, in this case, by the plant breeder Max Loebner.

Synonyms

The word "synonym" or the abbreviation 'syn.' or the = sign means that there is an old name for the plant that is no longer accepted. Plant names are changed from time to time if they are proven botanically imprecise or if a similar name is shown to already exist. *Sophora japonica*, for instance, has recently been renamed because of recent chromosome research and because the roots of true *Sophora* species harbour nitrogen-fixing bacteria while those of *S. japonica* do not. It is now called *Styphnolobium japonicum*.

References:

The Toronto Botanical Garden Weston Family Library is an excellent source for horticultural information.

- Coombes, Allen J. *Dictionary of Plant Names*. Portland Oregon: Timber Press, 1985
- Neal, Bill. *Gardener's Latin, A Lexicon*. N C, U.S.A.: Algonquin Books of Chapel Hill, March 2003

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