

Reference the Naturalist's Notebook

Botanical Latin: Understanding Plant Names

Botanical Latin, the universal language of scientists, horticulturists, and gardeners, was developed and has evolved over the past three centuries to provide a common language that can describe characteristics of plants and help organize them into related groups for study. It is similar to other forms of Latin but differs from them in important ways.

Botanical Latin generally follows the standard rules of classical Latin, including gender and case endings. Many descriptive words, like *rubrum* for rosy-red, are derived directly from classical Latin. This ancient language could not fully describe the immense variety of plants that are known today, however, so new words had to be created. Some names have been pieced together from both Latin and Greek. For example, the word *botrytis*, which began as a root and suffix in classical Greek, was first “Latinized” before being added to the botanical Latin vocabulary.

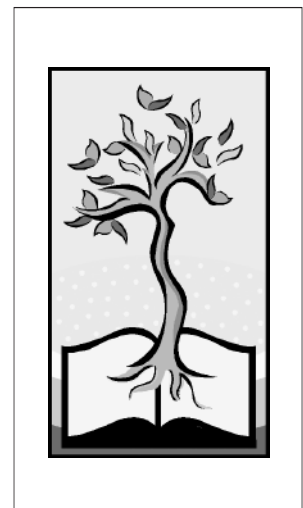
Botanical Latin names describe plants on multiple levels. The brassica family will be used to illustrate the structure of the botanical name, since many schools are now using the Wisconsin Fast Plant, *Brassica rapa*, in science classes. Most of the time, garden catalogs do not go beyond the levels listed below, but more detailed names may be included in scientific and advanced horticultural texts.

Family

Members of a plant family share one or more important characteristics, but there can be many traits that are dissimilar. For many years, the family of which *B. rapa* is a part was known as *Cruciferae*, a name created from the word that means cross-forming in Latin, referring to the four-petal pattern of the flowers common to all members.

Although many people still call it by that name, scientists recommend the use of *Brassicaceae* instead because it refers to *Brassica*, which is the characteristic type of plant in the family. The family name is not italicized.

Genus



Reference
accompanies the Naturalist's
Notebook for K-5 Educators,
a quarterly publication of
Reynolda Gardens of Wake
Forest University.

There is much diversity within families, so its members are divided into genera (plural of genus). Plants in a genus share many characteristics, but there are still notable differences. The genus *Brassica*, named for the word brassica, which means cabbage in Latin, includes plants such as Brussels sprouts, mustard, and kale, as well as cabbage. All of these plants have similar leaf shape, size, and odor but are different from each other in growth habit. The genus name is italicized when it is used scientifically or in conjunction with a species name. The genus name that is widely used can become a common name. For example, plants of the genus *Brassica* are often called brassicas. In that situation, the word is written in roman letters and may be pluralized like any other noun.

Species

Each genus is further divided into smaller sections, called species. Plants of the same species share many characteristics with each other and fewer with other members of the genus. Species names describe the place of origin, color, use, or other special characteristic. Commonly used words are tomentose, for hairy; *purpurea*, for purple; *glauca*, for white-covered; and *arborescens*, for tree-form. The species name is italicized.

Further Divisions

In large or very diverse families or genera, there may be additional divisions. *Brassica* is divided into groups that describe certain characteristics.

- Cabbage, *B. oleracea* (*oleracea* means pertaining to kitchen gardens), is in the *Capitata* (head-forming) Group.
- Cauliflower, *B. oleracea*, is in the *Botrytis* (flowers in tight clusters, like bunches of grapes) Group.
- Broccoli, *B. oleracea*, is in the *Italica* (native to Italy) Group.
- Pak choi, *B. rapa*, is in the *Chinensis* (native to China) Group.

Subspecies, Variety, and Cultivar

Sometimes another name is added after the genus and species. This is a further scientific division of the species, either a subspecies, a variety, or a cultivar. These plants vary little from each other, but there are recognizable distinctions. They are distinguished by the roman letters *var.* for variety or italicized letters *ssp.* for subspecies. If the word is capitalized and written in roman letters or is set off by single quotation marks, it is a cultivated variety, a term that is often shortened to cultivar. Such a plant has been developed or selected because it exhibits certain qualities. *B. rapa* 'Joi Choi', a favorite pak choi, is a good example of this type of name.

Occasionally, a subspecies does not have its own name, but it is different from other members of the species. For example, the Wisconsin Fast Plant, developed under the auspices of the University of Wisconsin Fast Plants Program, was selected for research studies from a wild population of *B. rapa* because of its rapid life cycle. The original species has undergone change during the years of use in schools and laboratories, but it has not received a varietal, subspecies, or cultivar name in addition to *B. rapa*.

MORE VOCABULARY

These words describe plant characteristics and can be part of a scientific name. See the Spring 2004 issue of *The Naturalist's Notebook* for K-5 Educators for examples of their use.

canadensis—native to Canada and northeastern U.S.

cristata—crested

cordifolius—heart-shaped leaves

maculatum—spotted

officinalis—medicinal

patula—open and loosely spreading



Often the Botanical Latin word hints at the meaning in English. For example, plants are in the kingdom Plantae; this word means plants in Latin.

Reynolda Gardens of Wake Forest University is located within the boundaries of the 1,067-acre estate that was established by Mr. and Mrs. R. J. Reynolds in the early twentieth century. Today, RGWFU consists of 125 acres of woodlands, open fields, and wetlands; four acres of formal gardens; and a greenhouse range with conservatory. Student visit times are limited. Reservations are taken only in early August for the following school year. **Call the education office (336.758.3485) for information on programs and scheduling.**
