

# Scientific Names of Plants

## HOW TO SAY THEM AND WHAT THEY MEAN

Pronunciation

Meaning

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## I. PRONUNCIATION

1. Latin has no "silent letters." Pronounce every letter.
2. In the United States there are two main systems of pronouncing Latin scientific names, a traditional English system and an academic system that tries to approximate how the ancient Romans spoke. The traditional system is more common. The following table lists the main features of each system. Letters not listed are pronounced as in English.

LETTER	TRADITIONAL	ACADEMIC
long <b>a</b>	as in <i>fate</i>	as in <i>father</i>
short <b>a</b>	as in <i>fat</i>	as the first <i>a</i> in <i>apart</i>
<b>ae</b>	as <i>i</i> in <i>machine</i>	as <i>ai</i> in <i>aisle</i>
<b>au</b>	as <i>aw</i> in <i>bawl</i>	as <i>ou</i> in <i>house</i>
<b>c</b>	before <i>a, o, u</i> : as in <i>cat</i> before <i>e, i, y</i> : as in <i>center</i>	always as in <i>cat</i>
<b>ch</b>	as <i>c</i> in <i>cat</i> or <i>ch</i> in <i>church</i>	as <i>ckh</i> in <i>blockhead</i>
long <b>e</b>	as in <i>me</i>	as in <i>they</i>
short <b>e</b>	as in <i>pet</i>	as in <i>pet</i>
<b>ei</b>	as in <i>height</i>	as in <i>rein</i>
<b>eu</b>	at beginning of word: as in <i>Europe</i> within word: as in <i>rheumatism</i>	as Latin <i>e + u</i> , run together rapidly
<b>g</b>	before <i>a, o, u</i> : as in <i>get</i>	always as in <i>get</i>

	before <i>e, i, y</i> . as in <i>gem</i>	
long <b>i</b>	as in <i>ice</i>	as in <i>machine</i>
short <b>i</b>	as in <i>pin</i>	as in <i>pin</i>
consonant <b>i (j)</b>	as <i>j</i> in <i>jam</i>	as <i>y</i> in <i>yes</i>
long <b>o</b>	as in <i>clover</i>	as in <i>clover</i>
short <b>o</b>	as in <i>not</i>	as in <i>off</i>
<b>oe</b>	as <i>i</i> in <i>machine</i>	as <i>oi</i> in <i>oil</i>
<b>ph</b>	as in <i>philosophy</i>	as in <i>up hill</i>
<b>r</b>	as in English	trilled as in Spanish
<b>t</b>	as in <i>table</i> before <i>i</i> . as in <i>nation</i>	always as in <i>table</i>
<b>th</b>	as in <i>theater</i>	as in <i>hothouse</i>
long <b>u</b>	as in <i>rude</i>	as in <i>rude</i>
short <b>u</b>	as in <i>tub</i>	as in <i>put</i>
<b>ui</b>	as <i>w</i> in <i>we</i>	as in <i>ruin</i>
<b>v</b>	as in English	as <i>w</i> in <i>we</i>
long <b>y</b>	as in <i>my</i>	as <i>u</i> in French <i>pur</i>
short <b>y</b>	as in <i>cynical</i>	as in French <i>du</i> or <i>ü</i> in German <i>über</i>

Examples: *Julius Caesar* in the traditional English system is pronounced *JOO-lee-us SEE-zer*. In the academic system, the name is pronounced *YOO-lee-us KAI-sar*. *Cyperus papyrus*, *papyrus*, in the traditional system is *si-PEE-rus pa-PIE-rus*; academically, it is *kü-PAY-rus pah-PÜ-rus*.

3. A Latin word has as many syllables as it has vowels. To divide a word into syllables, note the following:

a. A single consonant between two vowels goes with the following syllable: *Ro-sa*, *Pi-sum*.

b. When two or more consonants stand between vowels, the last consonant goes with the following syllable: *phyl-lum*, *al-ba*. However, *p*, *b*, *t*, *d*, *c*, and *g* with either *l* or *r*, and *th*, *ch*, *ph*, and *qu* count as a single consonant. See the last syllables in *Li-ri-o-den-dron*, *pa-lus-tris*, *Chi-o-nan-thus*.

4. A syllable is *long* if it has a long vowel, or a vowel followed by two or more consonants. Otherwise it is *short*. Examples: the first syllable of *Pi-nus* is long because it has a long vowel. The next-to-last syllable of *mi-cro-phyl-la* is long because its vowel is followed by two consonants (*ll*).

5. The accent in a Latin word falls on the syllable second from the end if that syllable is long (or if the word is two syllables long). Otherwise the accent is on the syllable third from the end. Examples: *leu-co-PHYL-la*; *Rho-do-DEN-dron*; *flo-ri-DĀ-na*; *Mag-NO-li-a*; *LU-te-a*; *me-sem-bry-an-the-mi-FO-li-a*.

6. When a name comes from the name of a person, the accent and pronunciation are adjusted so as not to mangle the person's name completely. Example: *michauxii*, meaning "of (André) Michaux," is pronounced *mee-SHOW-ee-eye* (or *-ee-ee*), not *mee-KHOWK-see-ee*. *Halesia*, the silverbell tree, is often pronounced *ha-LEE-see-a*, but since it is named for Stephen Hales, it may be better to say *HALE-see-a*, even though this makes the "e" silent, a no-no in Latin.

## II. MEANING

1. Latin indicates the function of words in a sentence by word *endings*. For example: *Canis mordet puerum* is the same as *puerum mordet canis* or *puerum canis mordet*. The word endings tell you which word is the subject (*canis*) and which word is the object (*puerum*). English indicates the function of words by word *order*: Compare *The dog bites the boy* with *the boy bites the dog*. Only the word order is different, but the sentences have different meanings.

2. The two word-functions you will see in scientific plant names are the *nominative* or subject function (or case) and the *genitive* or possessive function (case). This table shows the most common endings for nominative and genitive words in the singular.

	"TYPE I" WORDS			"TYPE II" WORDS	
	masculine	feminine	neuter	m. and f.	neuter
Nominative	<b>-us</b>	<b>-a</b>	<b>-um</b>	<b>-is</b>	<b>-e</b>
Genitive	<b>-i</b>	<b>-ae</b>	<b>-i</b>	<b>-is</b>	<b>-is</b>

3. The nominative ending shows that the word is the subject of a sentence. The genitive ending shows possession, like the English word "of" or word ending "'s." Examples of "Type I" words: *Rosa*, a rose (subject); *rosae*, of a rose; *Linnaeus*, Linnaeus (subject); *Linnaei*, of Linnaeus; *godfreyi*, of (Robert) Godfrey; *henryae*, of (Mary) Henry. "Type II" words: *apalachicolense*, Apalachicolan (subject); the second word in *capillus-Veneris*, hair of Venus.

4. Specific names consist of two words: the name of the genus followed by the specific epithet. The genus name is a noun. The specific epithet plays one of three grammatical roles: an adjective modifying the genus name, a noun in the genitive case meaning "of x" (where x is the noun that forms the epithet), or a noun in apposition to the generic name.

a. Examples of adjectives: *Magnolia virginiana*, "Virginian magnolia" (sweet bay); *Camellia japonica*, "Japanese camellia;" *Boltonia apalachicolensis*, "Apalachicolan boltonia;" *Quercus alba*, "white oak;" *Pinus palustris*, "swamp pine" (longleaf pine); *Croomia pauciflora*, "few-flowered croomia;" *Capparis cynophallophora*, "dog-penis-bearing caper." These adjectives must match the genus name in gender, number, and case.

b. Examples of genitives: *Pinus elliottii*, "pine of (Stephen) Elliott" (slash pine); *Minuartia godfreyi*, "Minuartia of (Robert) Godfrey;" *Hymenocallis henryae*, "Hymenocallis of (Mary) Henry;" *Hasteola robertiorum*, "Hasteola of the Roberts." These genitives often commemorate the first collector of a species. My friend Gerald Smith, who works on spider-lilies, asked me to suggest a name for a spider-lily that was first noticed at Cow Creek Landing on the Ochlockonee River in northern Florida. I created the name *Hymenocallis rivi-bovum*, "Hymenocallis of the river of cows," to commemorate Cow Creek, but Gerald took so much abuse about this name that he has changed it to *Hymenocallis frankliniensis*, for Franklin County.

c. Examples of nouns in apposition: Xena, Warrior Princess; *Adiantum capillus-veneris*, "Venus's-hair adiantum;" *Acer negundo*, "Negundo maple" (box elder); *Aesculus pavia*, "pavia buckeye" (red buckeye); *Zephyranthes atamasco*, "atamasco zephyranthes" (atamasco lily); and *Diospyros kaki*, "*kaki* diospyros" (Japanese persimmon). Many of these names in apposition are names for the plant in other languages taken over as specific epithets.

5. Generic names are nouns that can come from any source whatsoever. In practice, they tend to come from a few main sources.

a. Classical Latin plant names, sometimes transferred by modern botanists to other plants: *Quercus* (oak), *Fagus* (beech), *Pinus* (pine), *Acer* (maple), *Cornus* (dogwood), *Rosa* (rose), *Lilium* (lily), *Malus* (apple), *Ilex* (holly).

b. Classical Greek plant names, sometimes transferred by modern botanists to other plants: *Rhododendron* (rhododendron, azalea), *Narcissus* (daffodil), *Anemone* (anemone), *Styrax* (snowbell), *Thuja* (arbor vitae), *Hieracium* (hawkweed), *Myrsine* (myrsine), *Carya* (hickory), *Melia* (chinaberry), *Myrica* (wax myrtle, bayberry), *Typha* (cattail), *Zea* (corn), *Smilax* (greenbriar).

c. Names from Latin and Greek myths, taken over by recent botanists for plant names: *Nyssa* (tupelo, gum), *Andromeda* (andromeda), *Calypso* (calypso), *Liriope* (monkey grass), *Iris* (iris).

d. Modern names made from one or more Greek words: *Liriodendron* (tulip poplar), *Philodendron* (philodendron), *Chionanthus* (fringe tree, granddaddy greybeard), *Helianthus* (sunflower), *Chrysanthemum* (chrysanthemum), *Eremochloa* (centipede grass), *Cynodon* (Bermuda grass), *Stenotaphrum* (St. Augustine grass), *Eriobotrya* (loquat), *Thelypteris* (woods fern), *Pyracantha* (pyracantha), *Pittosporum* (pittosporum), *Podocarpus* (podocarpus), *Cladium* (sawgrass), *Dirca* (leatherwood), *Hymenocallis* (spider lily), *Hippeastrum* (amaryllis), *Lycopodium* (clubmoss), *Lycopersicon* (tomato), *Rhapidophyllum* (needle palm), and many others. This is probably the largest category of plant generic names.

e. Names of famous botanists and other people, put into Latin form: *Linnaea* (twinflower), *Poinsettia* (poinsettia), *Camellia* (camellia, tea), *Magnolia* (magnolia), *Kalmia* (mountain laurel), *Halesia* (silverbell tree), *Croomia* (croomia), *Chapmannia* (alicia), *Harperocallis* (Harper's beauty), *Serenoa* (saw palmetto), *Cunninghamia* (chinese evergreen), *Gardenia* (gardenia), *Woodwardia* (chain fern), *Torreya* (torreya), *Sabatia* (marsh pink), *Wisteria* (wisteria), *Sequoia* (redwood), *Forsythia* (forsythia), *Albizia* ("mimosa," silk tree), and many others. Probably the second largest category of generic names.

f. Names from languages other than Latin and Greek: *Sabal* (cabbage palmetto), *Catalpa* (catalpa), *Musa* (banana), *Sorghum* (sorghum), *Nandina* (nandina, heavenly bamboo), *Nelumbo* (lotus), *Nuphar* (spatterdock), *Guaiacum* (lignum vitae), *Hevea* (rubber).

g. Names from other sources. This grab bag includes names of unknown origin like *Liatris* (blazing star) and cute names like *Trilisa* (deer's tongue--an anagram of *Liatris*), various medieval and modern Latin names like *Aquilegia* (columbine), and mixtures of Latin and Greek names like *Taxodium* (bald cypress).

### III. REFERENCES

Good guides to pronunciation and meaning of Latin plant names are:

Stearn, W. T. 1996. *Stearn's dictionary of plant names for gardeners*. London: Cassell. The best book in English for origins of plant names. Marks the accented syllable for each name.

Coombes, A. J. 1994. *Dictionary of plant names*. Portland, Oregon: Timber Press. This book seems to recommend a weird combination of the academic and traditional pronunciations of names.

Fernald, M. L. 1950. *Gray's manual of botany*, 8th edition. New York: American Book Company. This is a technical book about the flora of the northeastern United States, but it gives the meaning of every genus and species name and indicates the accent. Still in print.

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<http://members.aol.com/magarland/botlat/testhand.htm>

Since scientific names are Latin, many beginners find them quite hard to pronounce (or remember, for that matter). This site provides some formalized guidance on spoken Latin and its meaning. There are two systems of pronunciation using English Latin - a traditional and an academic. Nonetheless, once learned, speaking Latin words is not forgotten easily.

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One warning, however, is that each country seems to have its own dialect, for instance Italian Latin. Although Latin is theoretically dead, I would suspect that Italians have a home court advantage. Meanings of epithets and the appropriate endings to the words are also useful to know. This is a useful site for learning how to say the proper names of plants--a skill for scientists and learned gardeners alike. (\*\*\*/2) -SR