

The Rose Family

By: Malcom M. Manners, mmanners@flsouthern.edu, Consulting Rosarian

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*The rose is a rose,
And was always a rose.
But the theory now goes
That the apple's a rose,
And the pear is, and so's
The plum, I suppose.
The dear only knows
What will next prove a rose.
You, of course, are a rose-
But were always a rose.*

by Robert Frost

I read this poem recently in Carol Hendrick's newsletter, from the Antique Rose Emporium. Frost must have been studying rose taxonomy. That gave me an idea for an article, explaining the concept of the rose family. Plant families are groups of plants which are more closely related to each other than they are to members of other families.

Roses belong to the family Rosaceae (rose-AY-see-ee), a rather large family (meaning that it contains many species), including quite a few food and ornamental crops. Members of the family usually have stipules (the pair of green flaps at the base of the leaf), often have thorns or prickles, and their flowers tend to have their parts in multiples of 5, with large numbers (more than 12) of stamens. Flowers of most members of the family have a hypanthium, which is a bowl- or cup-shaped structure, made up of the bases of the sepals, petals, stamens, and part of the receptacle (the end of the stem to which the flower is attached), all fused together. The sepals, petals, and stamens appear to grow out of the edge of the hypanthium.

The family Rosaceae is divided into six subfamilies, based on flower and/or fruit structure. Species within a subfamily are more closely related to each other than they are to members of any other subfamily. Think of it as a filing system, where the family might be the filing cabinet, each drawer a subfamily, each genus a file folder, and each species an individual document within the folder. The closer two items are to being alike, the more likely they are to be "filed" close to each other.

Family names end with the letters "aceae," and subfamilies end in "oideae." Here are the six subfamilies of Rosaceae:

Spiraeoideae* - includes bridal wreath (Spiraea), an ornamental shrub. In this group, the fruit is a dry, papery capsule or follicle.

Pomoideae (pom-oy-dee-ee) - includes several important fruits. All of this subfamily make a "pome" as their fruit type. A pome has a core made up of the true fruit (ovary), surrounded by a much-enlarged hypanthium. Apples, pears, and loquats are in this group. Most of what you eat is actually swollen hypanthium, and the core that gets thrown away is the true fruit (derived from the ovary of the flower).

Prunoideae (prune-oy-dee-ee) - In this subfamily, the fruit is a "drupe," entirely made up of the ovary of a flower. The hypanthium falls off with the petals, while the fruit is still tiny. A drupe has a thin outer skin, a soft, juicy pulp, and a hard, stony "pit," surrounding 1 or 2 seeds. This group includes peach, nectarine, plum, cherry, apricot, and almond. In the case of almonds, we throw away the fruit and keep the pit.

Chrysobalanoideae (kriss-oh-bal-an-oy-dee-ee!)* - Some taxonomists believe this subfamily is so different from the other subfamilies that it should be given full family status, in which case it would be the Chrysobalanaceae. It includes the gopher apple (*Licania*), a common ground-covering subshrub throughout Florida, and cocoplum (*Chrysobalanus*), a popular native shrub for use in clipped hedges in South Florida.

Neuradoideae - (new-rad-oy-dee-ee) - This subfamily apparently doesn't occur in Florida, either cultivated or native, and I know nothing about it. Sorry.

Rosoideae - (rose-OY-dee-ee) - This is the subfamily to which roses belong. Flowers in this group usually have at least 10 ovaries, often many more. In addition to roses, the group includes raspberries, blackberries, and strawberries.

With one exception, the plants we call "roses" all belong to a single genus within the Rosoideae. The genus name is *Rosa*, which should always be written in italics or, if your typewriter or word processor can't do that, it may be underlined *Rosa*. The exception is *Hulthemia persica*, which has been separated from the true roses because of its simple leaves (only one leaflet), its complete lack of stipules, and perhaps some other reasons. We don't often see it in this country, but I saw some nice specimens at the R. Harkness & Co. nursery in England, last summer.

The true roses (genus *Rosa*) have stipules (usually attached to the base of the leaf), compound leaves, usually with an odd number of leaflets, often produce prickles (outgrowths of the epidermis at any point along the stem) but never true thorns (modified stems, specifically from the buds just above the leaves). They have 5-petal flowers (*R. omiensis* is an exception with only 4, and cultivated "double" roses have been selected by horticulturists, as desirable "freaks.") And, unique to the roses, they produce "hips" as their fruit type - a sort of inside-out strawberry, which is a deep, bowl- or snifter-shaped structure formed from the hypanthium. Inside are the hard, angular objects that most of us refer to as "seeds," but which are actually small fruits (achenes), each of which contains a single seed. Other examples of achenes are the so-called "seeds" of a strawberry or a sunflower. In each case, the shell is structurally a fruit, with a single true seed inside, attached to the achene at one end.

The Latin name (scientific name or botanical name) of a rose consists of the genus name, *Rosa*, followed by the species name. Both words should be either underlined or italicized.

Here are some examples:

Rosa canina (the dog rose)
Rosa palustris (the swamp rose)
R. multiflora (a rootstock variety)
R. rugosa

Note that after you've listed the genus once, it becomes acceptable to abbreviate it with just the first letter and a period. To be entirely correct, one should also include the name of its "author," the person who described and named the species, or an abbreviation of that name, after the species name (e.g., *R. gallica* L., which indicates that Linnaeus is the author of the species); however, unless you're being quite picky, it is usual to drop the author's name.

Most of the roses we grow in our gardens are not species; rather, they are complex hybrids with several species in their backgrounds. Even many of our oldest heritage varieties are hybrids which occurred naturally, when two species were grown near each other so that cross-pollination occurred, and then new plants were grown from the resulting seeds. In the case of hybrids, we no longer try to list the species in their ancestry. Instead, they are given cultivar (= "variety") names, which are not in Latin and which are always capitalized and surrounded by single quotes. Examples are '**Duchesse de Brabant**', '**Prosperity**', '**Marechal Niel**', etc. It is also possible to have named cultivars of a species rose, e.g., *R. filipes* **Kiftsgate**, which indicates that the variety '**Kiftsgate**' is a selection of a particular form of the species.

That's probably enough taxonomy for one article, so I'll stop now. Perhaps we'll have more, later.

***spiraeoideae** - a marvelous word to use at boring dinner parties, to liven up the conversation. It's pronounced spy-ree-oy-dee-ee, with the "oy" accented. Just say something like, "I believe some flowers from a shrub in the Spiraeoideae have fallen into the mashed potatoes, from the centerpiece bouquet!" You will immediately have the whole crowd's attention.

***kriss-oh-bal-an-oy-dee-ee!** - This would be a great name for a cat, assuming that you don't much like cats! Poetical, huh? If it just had one more syllable, it could be a line out of "Song of Hiawatha." Don't even try this one at a dinner party; you'll be escorted out, quickly.