Garden How-to: Botanical Classification — or What's in a Name?

You may say "po-TAY-to" and I may say "po-TAH-to", but someone else might call it *Solanum tuberosum* 'Yukon Gold.' What's with all these different names? Plants can go under a variety of monikers and it's helpful to understand where the various names come from and what they mean.

Let's start with common names. Everybody is familiar with them, but unfortunately, not everyone is familiar with the same common name for the same plant. For example, calling a tree by the common name of "cedar" may refer to one of several very different kinds of trees. To add to the confusion, frequently the same plant has acquired more than one common name. *Vinca minor* may be called periwinkle or myrtle; obedient plant and false dragonhead both refer to the perennial *Physostegia*.

Using the two-part or binomial Latin name (also referred to as the scientific or botanical name) for a plant can help clear up the confusion, at least most of the time. Each specific type of plant has a unique, two (occasionally three) part name. Let's go back to our potato of the first paragraph. *Solanum* is the genus name. The **genus** (the plural is **genera**) applies to a group of related species that share certain characteristics. So eggplants, which are related to potatoes, are also in the genus *Solanum*.

The second part of the Latin name is called the **specific epithet** and applies to the particular plant. So potatoes are *Solanum tuberosum* and eggplants are *Solanum melongena*. The two names together designate the plant **species**. On occasion there may be further divisions into subspecies, botanical variety or forma, making a three-part name.

Lots of people shy away from using Latin names because they are unsure how to pronounce them, and admittedly there are some doozies. Ostrich fern is lots easier than *Matteuccia struthiopteris,* no contest! But most aren't that daunting if you simply sound them out. And gardeners have learned to easily use the many that double as common names -- think of *Delphinium, Iris, Sedum* and *Hosta*.

But what about the 'Yukon Gold' in our potato example? This is the **cultivar name**, which follows the species name in single quotes. Cultivar refers to a "cultivated variety" of a species that has been deliberately selected by breeders for one or more specific, desirable characteristics that are retained when the plant is propagated in a way that will maintain those characteristics. Cultivars, which originate through selection by humans, are distinguished from naturally occurring botanical varieties. However, the general term "variety" is often loosely used when "cultivar" is the more accurate term. What all this means to a gardener is that all plants of a

particular cultivar can be counted on to have the same unique set of characteristics. All 'Yukon Gold' potatoes will have yellow skin and flesh, whereas the cultivar 'Caribe' will produce white-fleshed potatoes with bluish-purple skins.

Sometimes you'll see scientific plant names with the letter "x" between the genus and the specific epithet. This indicates that the plant is a hybrid, a plant that is the result of a cross between different species or cultivars. Some hybrids occur naturally, while others are the result of intentional crossing by plant breeders to produce plants with specific traits.

Especially with ornamental plants, you may see plants called by yet another name, usually one with lots of marketing appeal. For example, you may see a popular hydrangea on sale at a local garden center called Endless Summer®. But if you look at the fine print on the tag, you'll see the name *Hydrangea macrophylla* 'Bailmer' (PP 15,298). The official cultivar name is 'Bailmer,' but the registered **trademark name** (denoted by the symbol®) is the more marketable Endless Summer, while the numbers following the name indicate that the plant is patented. This means that for the next 20 years, only the patent holder can commercially propagate and sell the plant or license the rights to do so. (You may also see the ™ symbol used; this signifies a trade name that has been claimed but not yet registered with United States Patent and Trademark Office.) Plant sellers sometimes confuse the trademark name with the cultivar name, writing it after the species name in single quotes. So it's not uncommon to see the above hydrangea listed (incorrectly) as H. macrophylla 'Endless Summer'. As a consumer, it's mainly important just to realize that there may be a number of different ways of naming the same plant.

And finally, we said earlier that using Latin names for plants clears up uncertainty as to the actual identity of the plant *most* of the time. Unfortunately for gardeners who've learned their botanical Latin, plant taxonomists sometimes revise the long-used scientific names of plants for greater botanical accuracy—and, often, greater gardener confusion! For example, many plants previously found in the genus *Aster* have recently been moved to various new genera. An example is the smooth aster, formerly *Aster laevis*, now named *Symphyotrichum laeve.* (Why does the new name always seem to be harder to spell and pronounce than the older one?) Botanical name changes may make things tricky when you consult plant catalogs and other references; some get updated quickly, some continue to use the old names, so it helps to be aware of both. A rose by any other name may smell as sweet, but if you're trying to find it in a catalog, it helps to know what it answers to!