

# What's in a name?

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If you are new to growing cacti and succulents, you may be wondering how to write correctly the genus, species and other names and designations. Look no further as all is explained below! Photography as indicated.

**F**or many newcomers to the hobby, the naming of cacti and succulents can cause confusion. Words such as variety, subspecies, forma are just some examples, and what about letters and numbers after a name? This short guide will give you a good grounding in what these terms mean, and more importantly, how to write them correctly.

Think of every plant as having two names, a first and last name: genus and species. This is just like you, a human being: *Homo sapiens*.

The **genus** name is just like the first name and is always capitalised and italicised. If you are not able to italicise a botanical name then underline it, though these days almost all keyboards have the facility to italicise, and this would really only apply if you were writing a letter. So, we have as some examples: *Parodia*, *Mammillaria*, *Aloe* and *Lithops*. When you do not know the species (second name), then write the genus name like this – *Mammillaria* sp. Written as “sp.” which is short for species, it is never italicised.

The **species** name (remember this as the second name) is always italicised but never capitalised: *Eriosyce aurata*, *Mammillaria theresae*, *Aloe polyphylla* and *Lithops aucampiae*. A species is a group of individual organisms that interbreed and produce fertile, viable



Fig. 1 *Ariocarpus retusus* (Photo: Alice Vanden Bon)



Fig. 2 *Lithops aucampiae* subsp. *aucampiae* var. *koelemanii* C256 (Photo: Alice Vanden Bon)

offspring. Members of the same species are similar both in their external appearance and their internal physiology. Some species can look very dissimilar, such as two very different mammillarias, but can still mate and produce viable offspring, which signifies that they belong to the same species. At the same time, some species may look very similar externally, but can be dissimilar enough in their genetic makeup that they cannot produce viable offspring and are, therefore, different species. Different species can hybridise with each other.

A **subspecies** is distinctly different from the normal species, usually based on an isolated geographical location in nature where the subspecies evolved independently.

These plants do not normally interbreed and are written as “subsp.” (also “ssp.”) and not capitalised or italicised, such as *Mammillaria heyderi* subsp. *gaumeri*.

**Variety** names are given when a mutation occurs in nature. Seedlings grown from a variety will have the same unique characteristic of the parent plant, but will somehow be different. Variety is written “var.” (also “v.”) and never capitalised or italicised, such as *Lithops aucampiae* subsp. *aucampiae* var. *koelemanii* or *Agave parryi* var. *truncata*.

**Cultivar** is short for cultivated variety. We select plants for growth form, flower colour or other



Fig. 3 *Sansevieria trifasciata* cv. 'Moonshine'  
(Photo: Alice Vanden Bon)

desirable characteristics such as hardiness, and then cross them with each other to reproduce the desired characteristics. Breeding can be done through artificial pollination or vegetatively through cuttings, grafting or tissue culture as these plants are not natural. Cultivar is written as "cv." and is never capitalised or italicised, such as *Sansevieria trifasciata* cv. 'Moonshine'. The cultivar name is always capitalised, never italicised, and written with single quotes like 'Moonshine'.

A **Hybrid** is a plant that is the result of a cross between two unrelated plants that can be either wild or cultivated. This is often done artificially by transferring pollen from one plant to another to produce special qualities, such as the brilliant flower colours found in *Echinopsis* and *Adenium*. Seeds from the hybrid are often sterile. A hybrid is written as an "x" and is not capitalised or italicised, like *Austrocylindropuntia vestita* x *Austrocylindropuntia subulata*. You should use the multiplication symbol and not the letter "x". If it precedes the genus, it denotes an intergeneric hybrid (coming from two different genera) and is written x *Graptoveria* (a *Graptopetalum* crossed with an *Echeveria*). If the "x" precedes the hybrid name, it denotes the crossing of species in the same genus, such as *Crassula* x 'Morgan's Pink,' a hybrid of two *Crassula* species. The hybrid name is always capitalised, never italicised,

and written with single quotes around it like 'Morgan's Pink'.

**Forma** refers to minor differences within a species, often just one characteristic, such as flower colour. It is never capitalised or italicised and written as "forma" or "f." like *Mammillaria polythele* f. *nuda alba*.

There are other adjectives that you might see in plant names, like *cristate* (or *crest* or *cristata*), *monstrose* and *variegata* (or *variegata*). Never capitalise or italicise them, as in this example: *Mammillaria spinosissima* f. *rubrispina cristata*.

If a plant name has letters and numbers after it like *Sansevieria* sp. FKH 432, then that simply means that the plant is identified, temporarily, by the person's initials who found it and their field collection number, and a proper identification has not yet been made. Once it has been validly published then a species name will be given to it. You will also often see a genus and species name with letters and numbers after it, and these just denote the collector's field collection (or sometimes acquisition) number. For example, *Mammillaria bertholdii* TL1134, which indicates that the plant was collected by Thomas Linzen. A very useful resource is Ralph Martin's Field Number Database – [www.fieldnos.bcss.org.uk](http://www.fieldnos.bcss.org.uk)

Remember that not all publications, plant nurseries, websites and growers follow the rules as described above. To summarise:

**Genus:** *Mammillaria* sp.

**Species:** *Mammillaria petterssonii*

**Subspecies:** *Mammillaria petterssonii* subsp. *apozolensis*

**Variety:** *Mammillaria petterssonii* subsp. *apozolensis* var. *saltensis*

**Cultivar:** *Sansevieria trifasciata* cv. 'Moonshine'

**Hybrid:** *Crassula* x 'Morgan's Pink' or x *Graptoveria*

**Forma:** *Mammillaria polythele* f. *nuda alba*

Finally, always remember that "cactus" is singular and "cacti" is plural. You would not believe the number of times I have seen "this cacti" or "a cacti" in writing. You do not write "this dogs" or "a dogs"! But having said this, and all of the above, do not let names or how you write them worry you too much – the main thing is to enjoy your plants.

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