

The names of garden plants

How do we name and classify plants?

To ensure accurate communication, plants require unique names. Plants are also classified in different ways for different purposes. In a market, aubergines are regarded as vegetables and associated with cabbages, carrots, etc. Aubergines are, however, fruits and belong to the same botanical family (*Solanaceae*) as tomatoes, petunias and deadly nightshade, while cabbages are related to radishes, wallflowers and cress in the family *Brassicaceae*. Botanical families indicate similarity in plant and flower structure and reflect evolutionary relationships.

Why do we need scientific names?

Through the ages, plants have been given common (vernacular) names in the languages of the areas where they grow. *Hyacinthoides non-scripta*, the bluebell of western Europe, has at least 20 other common names in



Common name confusion: the bluebell of England (*Hyacinthoides non-scripta*), the bluebell of Scotland (*Campanula rotundifolia*), and the bluebell creeper (*Sollya heterophylla*) of Western Australia.

the UK alone. However, “bluebell” is also the common name for at least 15 unrelated plants in other English-speaking parts of the world. The use of a universal scientific (Latin) name enables everyone to understand plant names, whatever their local language.

What do the parts of a scientific name mean?

The scientific name of the common foxglove is *Digitalis purpurea*. *Digitalis* is the name of the genus (plural genera) and applies to all foxgloves. The second word is the species (plural species). These two words together (the binomial) refer uniquely to the common foxglove of western Europe. As long as it causes no confusion, the genus name may be abbreviated to its initial letter when later repeated in text, e.g. *D.* for *Digitalis*. Sometimes a species may be divided into subspecies (subsp.), varieties (var.) or forms (f.); e.g. white-flowered variants of the common foxglove have been named *D. purpurea* f. *albiflora*.

What is an author?

The author (or authority) of a species is the name (sometimes abbreviated) of the person, or people, who first described that species and published its name. It directly follows the scientific name, though it is often omitted in non-scientific writing. For example Linnaeus (usually abbreviated to L.) is the author of *Digitalis purpurea* L. Authors’ names are rarely used for cultivars.

What is a synonym?

Synonyms are superseded names. The plant we now know as *Pelargonium peltatum* was originally named *Geranium peltatum* by Linnaeus in 1753. In 1789 L’Héritier reviewed the genus *Geranium* and separated those species with differently shaped flowers into the new genus *Pelargonium*. *Geranium peltatum* L. is now a synonym of *Pelargonium peltatum* (L.) L’Héritier.

What is a hybrid?

A cross made between plants of two different species results in a hybrid. Hybrids may be given their own scientific names. For example, *Digitalis* × *mertonensis* is the hybrid name for all plants derived from crossing *D. purpurea* with *D. grandiflora*, a yellow-flowered species from central and southern Europe – the “x” indicates hybrid status. Many different cultivars (see below) may result from the same cross. Hybrids may also occur between different genera, subspecies, varieties and cultivars.

What is a cultivar?

Many cultivated plants have originated as chance seedlings, selections, hybrids or sports from other plants. These may be named as cultivars (from **cultivated variety**); e.g. a variegated foxglove has been named *Digitalis purpurea* ‘Chedglow’. If it causes no confusion, the cultivar name may directly follow the genus name (often done for hybrids if no species name has been given), or even the English (or other language) equivalent. *Solanum tuberosum* ‘King Edward’, *Solanum* ‘King Edward’ and potato ‘King Edward’ are all correct. ‘King Edward’ alone might be confused with the unrelated *Achillea* ‘King Edward’. The term cultivar should not be confused with the botanical variety, a term correctly used for wild plants.



Digitalis × *mertonensis* (centre) is the hybrid name for all plants derived from crossing *D. purpurea* (left) with *D. grandiflora* (right).

How is a new cultivar name chosen?

There are a few simple guidelines to follow when choosing a new name. Full details are given in the *International Code of Nomenclature for Cultivated Plants* (see below). Among other requirements and recommendations, a name should:

- be unique in the group to which it belongs
- consist of 2–30 letters
- be in a modern language, either entirely or in combination with a single Latin word
- not include the scientific or common name of the plant in question (except where linguistic custom demands)
- not include the words cultivar, form, grex, group, hybrid, improved, maintenance, mixture, selection, series, sport, strain, transformed or variety
- not include punctuation marks other than comma (,), stop (.), hyphen (-), exclamation mark (!), apostrophe (’), forward slash (/), or back slash (\)
- not exaggerate the plant’s merits
- not consist only of common descriptive words, e.g. “white”, “sweeter”, “tallest”
- not contain offensive words
- neither consist of nor include a registered trademark
- not commemorate a living person without that person’s consent

How is a new cultivar name published?

To be accepted, every new cultivar name must be published; this is important to help prevent duplicate uses of the same name. Any dated, printed publication such as a nursery catalogue, journal or book is acceptable. The name must be accompanied by a short description in a modern language, preferably distinguishing the new cultivar from all others. Names appearing only on plant labels are not properly published. Two printed copies of an online catalogue containing new names must be deposited in a designated library for website publication of the names to be accepted. It is also recommended that copies be sent to five other designated libraries.

What is a trade designation (selling name)?

If a cultivar name is not considered appealing, further names are sometimes chosen for marketing purposes; these are known as trade designations. Their use is often associated with plants which have received legal protection through Plant Breeders' Rights. However, the correct cultivar name must always be included on the plant label. The correct cultivar name for the popular yellow-leaved *Choisya ternata* is 'Lich' but the plant is marketed in the UK as *C. ternata* SUNDANCE ('Lich'). The cultivar *Clematis* 'Błękitny Anioł', being difficult to pronounce by non-Polish speakers, is sold in Britain as *Clematis* BLUE ANGEL ('Błękitny Anioł'). 'Błękitny Anioł' is still the accepted cultivar name and the translation, BLUE ANGEL, is a trade designation.

How is a plant name written?

There is an internationally recognised convention for writing plant names. The scientific part of a name is in italics (or underlined) but all other parts of the name must be in ordinary roman type. The genus name has an initial capital letter but the other parts of the scientific name do not. With few exceptions, all the words in a cultivar name start with a capital letter and should be enclosed in single quotation marks:

GENUS (e.g. *Malva*) + SPECIES (e.g. *moschata*) +
CULTIVAR (e.g. 'Pink Perfection') → *Malva moschata*
'Pink Perfection'

The abbreviation "cv." and the hybrid sign "x" are not used before cultivar names. Trade designations (selling names, see above) are not enclosed in quotation marks but should be in a distinctive typeface such as small capitals, e.g. *Clematis* WISLEY ('Evip001').

How are new cultivar names registered?

New cultivar names of ornamental plants may be registered with the appropriate International Cultivar Registration Authority (ICRA); this is a voluntary non-statutory system

which does valuable work in maintaining information about cultivars of many different genera and their names, mainly to prevent duplication and to give guidance on suitability. For information on ICRA contact the ISHS International Commission for Nomenclature and Cultivar Registration, through The Royal Horticultural Society Garden, Wisley, Woking, Surrey GU23 6QB or www.ishs.org/sci/icra.htm.

Sending a sample of a new cultivar to a herbarium specialising in cultivated plants will help to ensure that it does not become confused with others in the future. The Royal Horticultural Society Herbarium (address above) will accept specimens and a nomenclatural standard will be prepared from them (www.rhs.org.uk/Plants/Plant-science/RHS-Herbarium/Nomenclature).

What are statutory names?

A new plant may be legally protected by Plant Breeders' Rights so that the owner or their representative has the sole right to propagate the plant and receive royalties on all plants sold. As part of the process of applying for rights, the applicant must propose a suitable cultivar name, known legally as a denomination, which will be the statutory name by which the plant is known if rights are granted. For *Choisya ternata* SUNDANCE, referred to above, the denomination is 'Lich'. In some countries (including the UK) the sale of seed, or in some cases plants, of cultivars of certain garden vegetables is regulated through National Listing, a statutory process providing a directory of regulated and stable names.

For more information about Plant Breeders' Rights internationally, see www.upov.int. For Europe, contact The Community Plant Variety Office (CPVO), 3 boulevard Maréchal Foch, BP 10121, FR - 49101 Angers Cedex 02, France (www.cpvo.europa.eu/main/en).

For information about National Listing or Plant Breeders' Rights in the UK, contact The Plant Variety Rights Office, The Food and Environment Research Agency, Whitehouse Lane, Huntingdon Road, Cambridge CB3 0LF (www.fera.defra.gov.uk/plants/plantVarieties).

Further reading

A more detailed Guide to Plant Names may be found on the Hortax website at www.hortax.org.uk/plantnames/index.html. The Guide and this leaflet may be copied and distributed free of charge.

The 8th edition of the *International Code of Nomenclature for Cultivated Plants* (ICNCP or *Cultivated Plant Code*), 2009, published by ISHS as *Scripta Horticulturae* 10, ISBN 978 90 6605 662 6, is available from ISHS, PO Box 500, 3001 Leuven 1, Belgium (www.ishs.org/pub/scripta.htm); current price €20.00. The full text is available on-line at www.actahort.org/chronica/pdf/sh_10.pdf.

The latest *International Code of Botanical Nomenclature* (ICBN or *Botanical Code*), 2006, distributed by Koeltz Scientific Books, PO Box 1360, D-61453 Königstein, Germany for the International Association for Plant Taxonomy, ISBN 3 906166 48 1, can be obtained through bookshops or from www.koeltz.com; current price €48.00. The full text is available on-line at www.bgbm.org/iapt/nomenclature/code.

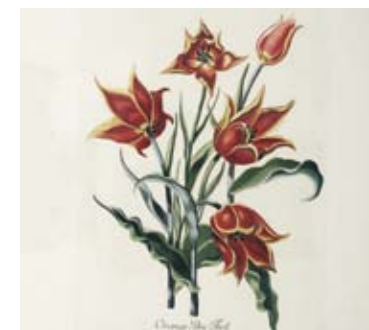
Hortax gratefully acknowledges financial support from the Stanley Smith (UK) Horticultural Trust.

All photographs © RHS. Bluebells (from left): Barry Phillips, Tim Sandall, Graham Titchmarsh. Foxgloves (from left): Barry Phillips, Philippa Gibson, Carol Sheppard. Cover (clockwise from top left): *Tulipa* 'Orange Duc Thol', from *Hortus nitidissimis* (1768–1786) by Christoph Jakob Trew; *Helianthus* 'Earthwalker', by Lee Beel; *Papaver* 'Fire Ball', by Carol Sheppard; apple 'Cox's Orange Pippin', from *The Herefordshire Pomona*, published between 1876 and 1885.

The Horticultural Taxonomy Group

The names of garden plants

A brief outline of how cultivated plants are named



HORTAX
www.hortax.org.uk