THE NAMING OF HORTICULTURAL VARIETIES

An intelligent plantsman is up against a blank wall when it comes to providing a name for some new plant he thinks he has found. Shall the name be in Latin or in English? Shall it be a botanical variety, a horticultural variety, or a "form"? If it is a hybrid, just what is the correct procedure in order to give it a proper name that will be accepted by horticulturists and botanists alike? There is an ever-increasing tie between the botanist and the practical plantsman, as far as the scientific names of plants are concerned, for both groups have agreed that it is best to follow the International Rules of Botanical Nomenclature, as approved by the International Botanical Congress, Cambridge, England, 1930.

Even though everyone agrees to the International Rules, the naming of new plants is difficult, and in the following discussion it is hoped that the correct procedure for naming new varieties is clearly set forth.¹

**Variety**

First, it is necessary to understand the concept of a botanical variety. The correct definition would be — A variety is a subdivision of a species composed of individuals differing from other representatives of the species in certain minor characters which are often of geographical significance, and which are usually perpetuated through succeeding generations by seed.

**Form**

A form is a subdivision of a *species or variety*, usually differing in only one character and often appearing sporadically throughout the range of the species; it is usually perpetuated vegetatively but may be perpetuated by seed, in which case only a certain percentage, as a rule, will be identical with the original form and the remainder will revert to the species or variety.

In some cases no clear line between a variety and a form can be drawn. Also,

¹ See also *Jour. Arnold Arb.* 10: 63, 1929.
the two terms have been used and are used interchangeably, so that differentiation between the two is often exceedingly difficult. Both the variety and the form as above described should be given a Latin name, and the original published description should include a short Latin description. The form or the variety may occur again in nature, and if it conforms to the original description, it would be given the same name no matter where or when it occurs.

Clon

On the other hand, there is a large group of plants which fail to come true from seed. Individuals in this group may be outstanding, and are perpetuated solely by asexual propagation of one kind or another. Such plants may be considered *forms* or they may be considered *clons* (formerly spelled clones). A clon is a group of plants composed of individuals reproduced vegetatively from a *single* plant. Hence, though a form may also be propagated vegetatively (a clon must be), the form may appear again anywhere at anytime and should be given the same name as its predecessor, whereas the clon constitutes a group of plants propagated from a *single specimen*, and if all the members of this group should happen to die, no plant in the same genus should ever be given the same name again regardless of where or when it occurs.

If the plant is considered a form, it is given a Latin name, and any time in the future that a plant is found conforming to the original description, it takes the same Latin name. In other words, a form name is one given to a group of individuals which may have originated over widely separated areas. A clon name is one given to a single individual and its vegetatively propagated progeny.

If considered a clon, the plant is given a vernacular name — a noun or an adjective used as a noun, in any language, as "Transcendent," "Snow White," "Dolgo," or "Wabiskaw." Any plant with such a name must be propagated asexually in a direct line from the one original plant.

**Selecting the New Name**

It is evident from the above descriptions of terms that giving Latin names (species, varieties, forms) to plants should be done by individuals who are trained taxonomists. In the past many plantsmen have tried to give Latin names to so-called "new" individuals, but because they did not know the entire group thoroughly nor the literature on the subject, such names, in many instances, have been proved worthless and unfortunately continue to clutter up many a nursery catalogue.

Consequently, the amateur should give a horticultural varietal name in English; unless he is certain he has a new species, variety or form, in which case he should get confirmation of his Latin name and Latin description from a trained taxonomist who is in a position to know the literature pertaining to the plant group in question.

If a certain plant is given a varietal name in English, it will always designate that particular clon even though some taxonomist at some future date may,
working over several similar clons, mention their similarity and give a Latin name (variety or form) to the group. This is possible and permissible, but the clon name still remains in use for that particular plant regardless.

Horticultural varietal names in English (i.e., clon names) would be best for most new varieties of Malus appearing that may be worthy of naming. Such names should be simple and to the point whenever possible. "Bob White" is a very good one. "Mr. C. S. Sargent" or Prof. C. S. Sargent" are not. The name might better be "Professor Sargent" or "Charles S. Sargent." The same brevity is needed with the prefix "Mrs." or "Miss." It is far better to give the full name, as "Henrietta White" rather than "Mrs. White" or "Mrs. A. R. White," or "Mrs. Alfred R. White." Taking the last two instances as examples, such names are easily confused in making labels and it is never long before such varieties become changed to "Mr. Alfred R. White" and finally to "Alfred R. White."

**Rules for Selecting New Horticultural Variety Names**

The International Horticultural Conference in London (1930) adopted several resolutions dealing with the naming of horticultural varieties. These have also appeared as an Appendix in the International Botanical Rules published in 1935. It behooves everyone who is interested in the naming of new horticultural varieties to study these resolutions and follow them in selecting new names for all plants.

1. Names of horticultural varieties must not be translated when transferred from other languages, but must be preserved in the language in which they were originally described. Where desirable a translation may be placed in brackets after the varietal name.

2. So far as possible, names of horticultural varieties should consist of a single word; the use of not more than three words is permitted as a maximum.

3. A varietal name in use for one variety of a kind of plant should not be used for another variety of that kind, even though it may be attached to a different species. Thus the use of the name Narcissus pseudonarcissus "Victoria" should preclude the use of "Victoria" as a varietal name for any other species of Narcissus, such as Narcissus poeticus "Victoria." Similarly there should be but one Iris "Bridesmaid," one Plum "Superb," and so on.

4. Varietal names likely to be confused with one another should be avoided. For instance, the use of the name "Alexander" should preclude the use of "Alexandra," "Alexandria," and "Alexandrina" as varietal names for the same kind of plant.

5. Where personal names are used to designate varieties, the prefix Mr., Mrs., Miss, and their equivalents should be avoided.

6. Excessively long words and words difficult to pronounce should be avoided.

7. The articles "a" and "the" and their equivalents should be avoided in all languages when they do not form an integral part of the substantive. For instance, "Colonel," not "The Colonel"; "Giant," not "The Giant"; "Bride," not "The Bride."
8. All the names of horticultural hybrids are formed as provided in the International Rules of Botanical Nomenclature. If a Latin name has been given to a hybrid form of uncertain origin which cannot be referred to a Latin binomial, it must be treated like a vernacular (fancy) name; e.g., *Rhododendron* "Atrosanguineum," *Rhododendron* "Purpureum grandiflorum."

**Publishing the Name**

To be valid under the International Rules of Botanical Nomenclature, the Latin or scientific names of species, varieties, and forms must be "validly published" in a work accessible to botanists and the public in general, and a short description in Latin must accompany the original description.

In publishing the names of horticultural varieties (clons), the Latin description is not required, but the description in English (or any other language written in Roman characters) should appear in a recognized horticultural or botanical periodical, monograph or other dated scientific publication. The mention of a clon in a catalogue or in the report of an exhibition *without a description* is not considered valid publication even though a figure is given.

**Naming Hybrids**

From a botanical point of view, a cross may be designated by a formula consisting of the names of two plants joining to make the cross, i.e. *Malus baccata × prunifolia*. Whenever it seems "useful or necessary" a name may be given to this cross, i.e., *Malus robusta*, in this case the name being given because the plant has considerable ornamental value, is grown a great deal, and the single name is more usable than the formula; it will include all the crosses however different between the two species, but the individual crosses, treated as clons, retain their horticultural names under it.

It is correct (and always best for the amateur) to use the formula in speaking of a new cross, rather than to run into the difficulties of selecting a new Latin name.

It is of the utmost importance to realize that hybrids are made up of clons which vary considerably in many characters. For instance, *× Malus robusta* is a hybrid (*M. baccata × prunifolia*), the fruit and flower sizes varying considerably. In fact, some plants resulting from this cross are practically worthless ornamentally. So, when one merely buys *× M. robusta*, one may obtain anything within the limits of this cross, some decidedly inferior and some very good ornamentally. But, *× M. robusta "Joan"* is a clon with definite characteristics, and one is able to know in advance just what characteristics this particular clon will have. Consequently, horticultural varietal names should be given to the offspring of all crosses.

**Examples**

1. A dogwood is found which has yellow fruits but in every other respect is identical with *Cornus florida*. Is it a variety, form or clon? Upon careful investigation it is found that yellow fruited dogwoods have appeared at widely separated places in the eastern United States. Hence, it is not a clon for it cannot have
been vegetatively propagated from a single specimen. It is not a variety for it differs from the species in only one character. Hence, it is a form, and it is given the name *Cornus florida xanthocarpa*.

2. A new crab apple has been found with unusually large double flowers. Nothing exactly like it has been described before, though some of its foliage characters are similar to those of *M. Halliana*, and others similar to those of *M. baccata*. Investigation shows that a cross between these two species has been named *M. Hartwigii*, but on looking up the description of this cross, the new plant does not seem exactly to fit. Since it obviously is a hybrid it is also a clon, and the name "Katherine" is given it. At present it will be known merely as *Malus "Katherine."* If at some future time fruits are available (they were not this year), it may be that this will definitely belong to the hybrid species \( \times M. Hartwigii \), and then it will be known as *M. Hartwigii "Katherine"* or it still may be called *M. "Katherine."* In any event, it will always keep the name "Katherine" regardless of what hybrid species it is associated with, and all its offspring must be asexually propagated in a direct line from the one original plant now growing in Durand-Eastman Park in Rochester, New York. (It is always well to use quotation marks around all clonal names to differentiate them unmistakably from all other names.)

**Conclusion**

In naming new horticultural varieties it is essential to:

1. Understand the differences between a species, variety, form, and clon as here defined.
2. Understand the rules for naming horticultural varieties as here set forth.
3. Select the name.
   a. If a species, variety, or form, obtain confirmation from a trained taxonomist regarding the name itself and the Latin description which must accompany its first publication, and which must conform to the International Rules of Botanical Nomenclature.
   b. If a clon or horticultural varietal name, be certain that it conforms to the rules set down in this paper.
4. Publish the name and description.
   a. If a Latin name, publish (with Latin description) in some botanical periodical available to botanists and the general public as well.
   b. If a horticultural name, publish (without Latin description) in some acceptable horticultural or botanical publication easily available to all.

Donald Wyman

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Notes

Fruits still remaining on shrubs and trees in the Arnold Arboretum on March 26, 1943. Presumably the fruits of other plants have fallen.

*Notes*

Aronia arbutifolia – dark brown, withered

" " " "Brilliantissima" – dark brown, withered
" " " "macrophylla – " " " " " 
" " melanocarpa elata – " " " " " 
" " prunifolia – " " " " " 

Berberis canadensis – a few bright red, still attractive

" " koreana – dark red and withered
" " ottawensis – few, bright red
" " Thunbergii – bright red, still attractive
" " " " argenteo-variegata – bright red, still attractive
" " " " atropurpurea – dark red
" " " " minor – bright red, still attractive
" " verruculosa – pale blue, withered

Celastrus orbiculata – orange red, withered

" " scandens – " " " " " 

Cotoneaster integerrima – few fruits, dark brown to black, withered

" " obscure – " " " " " " " " " " 
" " Zabeli – " " " " " " " " " " 

Crataegus Lavedeii – dark brown, withered

Ilex glabra – dull black, withered

Ligustrum acuminatum – dull black

" " acutissimum – " " " 
" " amureuse – " " " 
" " ibolium – " " " 
" " Ibeta Tschonoskii – dull black
" " obtusifolium – " " " 
" " " " " Regelianum – dull black
" " vulgare – dull black and withered
" " " " sempervirens – dull black and withered

Malus Hartwigii – 25% still on, remaining dark brown, withered

" " micromalus – dark brown, withered
" " Zumi “Bob White” – 50% still on, brown, withered
" " " " calocarpa – dark brown, withered

Phellodendron amurense – dull black, withered

" " chinense – " " " " " 
" " Lavedeii – few remain, dull black, withered

Rhodotypos scandens – dull reddish-black

Ribes fasciculatum chinense – red orange, withered
Rosa alba – few remain, brown and withered
" arvensis – few remain, dark purplish red
" canina inermis – reddish brown, still attractive
" centifolia – few remain, brown and withered
" coriifolia – " dark red, withered
" corymbifera – dark red, slightly withered
" Luciae – few remain, brown to black
" Maximowicziana Jackii – glossy dark red
" micrantha – few remain, dark red, withered
" multiflora – glossy dark red, still attractive
" " cathayensis – glossy dark red, still attractive
" setigera – dark dull red, still attractive
" " serena – dark dull red, still attractive
" virginiana – red to black, 75% are withered
Symphoricarpos sp. – few remain but dark brown and withered
Viburnum dilatatum – very dark red, withered
" lobophyllum – brown to red, withered
" " Sargenti – a few withered fruits remain, red