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## TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS

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#### PROPOSAL TO THE "GUIDE TO THE UPOV CODE SYSTEM" ON THE PRINCIPAL BOTANICAL NAME FOR INTER-GENERIC AND INTERSPECIFIC HYBRIDS

*Document prepared by an expert from the European Union*

*Disclaimer: this document does not represent UPOV policies or guidance*

#### BACKGROUND

1. The principal botanical name appearing in the UPOV GENIE database is used in the Community Plant Variety Office of the European Union (CPVO) "Variety Finder" database. However, some discrepancies are observed between this botanical name and the name used for registration of applications in the CPVO register. The CPVO wishes to align as far as possible to the UPOV Principal Botanical Name although the primary source of information for the CPVO registration purposes is the GRIN database. In cases where the same is indicated in GRIN and in the UPOV GENIE database the taxon recorded at the CPVO is exactly the same.
2. However, in case of intergeneric and interspecific hybrids where the individual parent genera/species are displayed, there is a discrepancy. Those hybrids are not displayed in GRIN.

#### INTERGENERIC AND INTERSPECIFIC HYBRIDS - UPOV APPROACH

3. The UPOV approach for the Principal Botanical Name for intergeneric and interspecific hybrids is explained in the "Guide to the UPOV Code System". The respective UPOV document specifies:

"2.2.6 In the case of UPOV codes for hybrid genera and species, the UPOV code will not distinguish between two hybrids produced using the same parents. A UPOV code is created for the first hybrid notified to UPOV in accordance with the procedure set out in paragraphs 2.2.3 to 2.2.5. However, if a subsequent request is received for a hybrid involving the same genera/species in a different combination, the Principal Botanical Name will be amended to indicate that the UPOV code covers all combinations involving the same genera/species.

*Example:*

UPOV code request received for: <i>Alpha one</i> x <i>Alpha two</i> UPOV Code	Principal Botanical Name
ALPHA_OTW	<i>Alpha one</i> x <i>Alpha two</i>

Subsequently, UPOV code request received for: *Alpha two* x *Alpha one* or (*Alpha one* x *Alpha two*) x *Alpha one* etc.

UPOV Code	Principal Botanical Name
ALPHA_OTW	Hybrids between <i>Alpha one</i> and <i>Alpha two</i>

## INTERGENERIC AND INTERSPECIFIC HYBRIDS - CPVO APPROACH

4. The International Code of Botanical Nomenclature (ICBN) rules state in recommendation H. 2A: “It is usually preferable to place the names or epithets in a formula in alphabetical order. The direction of a cross may be indicated by including the sexual symbols (♀: female; ♂: male) in the formula, or by placing the female parent first. If a non-alphabetical sequence is used, its basis should be clearly indicated.” In such a case the CPVO applies the internationally recognized taxonomy rules and can deal with registration of varieties where the exact origin including direction of crossing is unclear or not specified.

5. The CPVO does not have the flexibility that UPOV practices for the Principal Botanical Name for hybrids to be presented in non-alphabetical order. The CPVO register needs to communicate the name of hybrids in alphabetical order from the outset and only in very exceptional circumstances the name can be modified; as a principle it stays unaltered.

6. Furthermore, following the recommendation H.2.1 of the ICBN rules (“H.2.1. A hybrid between named taxa may be indicated by placing the multiplication sign between the names of the taxa; the whole expression is then called a hybrid formula.

Ex. 1. *Agrostis* L. . × *Polypogon* Desf.; *Agrostis stolonifera* L. × *Polypogon monspeliensis* (L.) Desf.; *Salix aurita* L. × *S. caprea* L.; *Mentha aquatica* L. × *M. arvensis* L. × *M. spicata* L.; *Polypodium vulgare* subsp. *prionodes* (Asch.) Rothm. × subsp. *vulgare*; *Tilletia caries* (Bjerk.) Tul. × *T. foetida* (Wallr.) Liro.”) and the examples presented as part of these rules, the CPVO registers the taxa including the author’s indications.

## PARTICULAR ISSUES

7. Upon registration of a botanical taxon in the CPVO database for which there is no UPOV Code available, the UPOV Office is requested to create the Code. In the case of hybrids, the UPOV Code is requested for taxa on the basis of parent names in alphabetical order. Consequently, the Principal Botanical Name created for the purpose of the GENIE database upon these requests should not be seen in the light of the “Guide to the UPOV Code System”, which allows the order to be presented as female first the rule, as it would lead to misinterpretation of the male and female parent species.

8. As a consequence of the approach used by the CPVO, the information on other varieties as presented in the UPOV example where the direction of the crossing is changed, is not available from CPVO and hence not communicated to UPOV. This may lead to the situation where the Principal Botanical Name at UPOV level is kept unchanged whereas, if the information was available, it would be changed as in the example – the 2<sup>nd</sup> table.

9. As a separate issue from the above reference to the interspecific hybrids of two species, the CPVO has received some comments from the applicants concerning the registration of hybrids resulting from crossing more than two species.

10. The policy of the CPVO is to register varieties under the genus name only in the case of interspecific hybrids involving unknown species or more than 2 species. Varieties from a well identified species are registered under the species name. Some breeders feel that the registration under the genus name does not reflect sufficiently that a variety is a result of complex hybridization since some authorities register as well varieties belonging to a given species under the genus name only. For example, results from “Variety Finder” show that the variety ‘Fuji Fubrax’ is recorded in 11 procedures under the species name *Malus domestica* and in 5 procedures under the genus name only. Numerous examples can be found in variety databases. Consequently, some breeders wished to have a distinction made by adding the word “hybrid” to the genus name.

PROPOSAL

11. It is proposed:

- to reconsider the possibility of the registration of the Principal Botanical Name for intergeneric and interspecific hybrids in the UPOV GENIE database as described in the “Guide to the UPOV Code System” – its point 2.2.6 taking into account the wish of authorities to harmonize the names with the UPOV database and the experience of authorities as regards registration of botanical taxa for varieties applied for plant breeder’s rights. In particular, it is proposed to consider the option to register hybrids in the alphabetical order and to indicate the author’s names;
- to exchange opinion about the registration policy under the genus names by different authorities;
- to consider if there could be a possibility to indicate that a variety is a complex hybrid.

[Annex follows]

## ANNEX

## GUIDE TO THE UPOV CODE SYSTEM

## 2.2 Inter-generic and inter-specific hybrids

2.2.1 The letter “x” is not used in the UPOV code to indicate hybrids.

(Background note: the multiplication sign ‘x’ is used in botany as an optional device to indicate hybridity, but is not part of a name in any sense and may or may not be applied according to the wishes and opinions of a botanical author or editor. What one person considers a hybrid, may not be so considered by another, thus we may see *Solanum tuberosum* or *Solanum x tuberosum* if the writer of the second version understands the potato species to be of hybrid origin.)

2.2.2 In the case of a genus which is formed as a hybrid between other genera and for which there is a binomial name (e.g. *xTriticosecale* [= *Triticum x Secale*]), the “genus element” of the UPOV code is based on the binomial name. For example, *xTriticosecale* has the UPOV code “TRITL”.

2.2.3 In the case of a genus which is formed as a hybrid between two genera (“hybrid genus”) (e.g. *Alpha x Beta*) and for which there is no binomial name, a UPOV code is created for the new “hybrid genus”. The genus element of the UPOV code is produced by combining the first two letters of the female parent genus and the first three letters of the male parent genus. For example, a “hybrid genus” which was formed as a hybrid between *Alpha* (UPOV code: ALPHA) and *Beta* (UPOV code: BETAA) would have the UPOV code “ALBET”.

2.2.4 In the case of a species which is formed as a hybrid between two species and for which there is no binomial name (“hybrid species”) (e.g. *Alpha one x Alpha two*), a UPOV code is created for the new “hybrid species”. The species element of the UPOV code is produced by combining the first letter of the female parent species and the first two letters of the male parent species. For example, a “hybrid species” which was formed as a hybrid between *Alpha one* (UPOV code: ALPHA\_ONE) x *Alpha two* (UPOV code: ALPHA\_TWO) would have the UPOV code “ALPHA\_OTW”.

2.2.5 In the case of a hybrid genus (or species) which is formed as a hybrid between more than two genera (or species) and for which there is no binomial name, the same general approach is followed as for a hybrid between two genera (or species); the sequence of letters used in the UPOV code is based on the order of female parent followed by male parent.

2.2.6 In the case of UPOV codes for hybrid genera and species, the UPOV code will not distinguish between two hybrids produced using the same parents. A UPOV code is created for the first hybrid notified to UPOV in accordance with the procedure set out in paragraphs 2.2.3 to 2.2.5. However, if a subsequent request is received for a hybrid involving the same genera/species in a different combination, the Principal Botanical Name will be amended to indicate that the UPOV code covers all combinations involving the same genera/species.

Example:

UPOV code request received for: <i>Alpha one x Alpha two</i> UPOV Code	Principal Botanical Name
ALPHA_OTW	<i>Alpha one x Alpha two</i>

Subsequently, UPOV code request received for: *Alpha two x Alpha one*  
or  
(*Alpha one x Alpha two*) x *Alpha one*  
etc.

UPOV Code	Principal Botanical Name
ALPHA_OTW	Hybrids between <i>Alpha one</i> and <i>Alpha two</i>

[End of Annex and of document]