E

UPOV

CAJ/65/6
ORIGINAL: English
DATE: January 26, 2012

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
Geneva

ADMINISTRATIVE AND LEGAL COMMITTEE

Sixty-Fifth Session
Geneva, March 29, 2012

UPOV INFORMATION DATABASES

Document prepared by the Office of the Union

1. The purpose of this document is to provide an update on developments concerning the GENIE database, the UPOV Code System and the Plant Variety Database and to consider certain proposals concerning the UPOV Code System.

GENIE DATABASE

2. It is recalled that the GENIE database (http://www.upov.int/genie/en/) has been developed to provide, for example, online information on the status of protection (see document C/45/6), cooperation in examination (see document C/45/5), experience in DUS testing (see document TC/48/4), and existence of UPOV Test Guidelines (see document TC/48/2) for different GENera and specIEs (hence GENIE), and is used to generate the relevant Council and Technical Committee (TC) documents concerning that information. In addition, the GENIE database is the repository of the UPOV codes and also provides information concerning alternative botanical and common names.

UPOV CODE SYSTEM

3. The "Guide to the UPOV Code System" (see http://www.upov.int/genie/en/upov_code.html) is reproduced in Annex I to this document.

UPOV code developments

4. In 2011, 173 new UPOV codes were created and amendments were made to 12 UPOV codes. The total number of UPOV codes in the GENIE database at the end of 2011 was 6,851.

	Year						
	2005	2006	2007	2008	2009	2010	2011
New UPOV codes	n/a	n/a	n/a	300 (approx)	148	114	173
Amendments	n/a	n/a	n/a	30 (approx)	17	6	12*
Total UPOV Codes (at end of year)	5,759	5,977	6,169	6,346	6,582	6,683	6,851

* including changes to UPOV codes resulting from reclassification of *Lycopersicon, Solanum* and *Cyphomandra* (see document TC/47/8).

5. In accordance with the procedure set out in Section 3.3 of the Guide to the UPOV Code System (see Annex I), the Office of the Union will prepare tables of UPOV code additions and amendments, for checking by the relevant authorities, for each of the Technical Working Party (TWP) sessions in 2012.

Proposals to amend the Guide to the UPOV Code System

UPOV codes for hybrids: Section 2.2.6

6. The Guide to the UPOV Code System states the following with regard to UPOV codes for different hybrids produced using the same parents:

> "2.2.6 The approach for introducing UPOV codes for hybrid genera and species, as set out in paragraphs 2.2.3 to 2.2.5, means that the UPOV code will distinguish between two hybrids produced using the same parents, but with the male and female parents reversed, e.g.:
>
> ALPHA_OTW: Alpha one (ALPHA_ONE)) x Alpha two (ALPHA_TWO)
> ALPHA_TON: Alpha two (ALPHA_TWO) x Alpha one (ALPHA_ONE)"

7. In practice, the available information does not always allow certainty with regard to the male and female parents for a particular request for the creation of a UPOV code for a hybrid. In addition, there are an increasing number of requests for UPOV codes for hybrids involving repeated backcrossing generations in certain genera that result in many different UPOV codes, but for which the same species have been used. For example:

UPOV Code	Principal Botanical Name
PRUNU_ADA	Prunus armeniaca x Prunus domestica x Prunus armeniaca
PRUNU_ADO	Prunus armeniaca x Prunus domestica
PRUNU_DAR	Prunus domestica x Prunus armeniaca
	Prunus domestica x Prunus domestica x Prunus armeniaca
	Prunus domestica x Prunus domestica x Prunus domestica x Prunus armeniaca

PRUNU_ASA	Prunus armeniaca x Prunus salicina x Prunus armeniaca
PRUNU_SAM	Prunus salicina x P. armeniaca L.
PRUNU_SAS	Prunus salicina x Prunus armeniaca x Prunus salicina
PRUNU_SSP	Prunus salicina x Prunus salicina x Prunus armeniaca

8. Therefore, it is proposed that the approach for introducing UPOV codes for hybrid genera and species be amended such that a single UPOV code would cover all hybrid combinations of the same genera/species, as follows:

"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: *Alpha one* x *Alpha two*

UPOV Code	Principal Botanical Name
ALPHA_OTW	*Alpha one* x *Alpha two*

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 *Alpha one* and *Alpha two*

UPOV codes for hybrids: Section 2.2.7

9. The Guide to the UPOV Code System states the following:

"2.2.7 In the case of a "hybrid" genus (or species) (i.e. which is not taxonomically recognized as a genus (or species) in its own right), the GENIE database contains a link between the "parent" genera (or species) and the "hybrid" genus or species. Thus, when searching in GENIE, it is possible to search on a UPOV code, but to choose to also receive the results on all "linked" UPOV codes:

Example: Hybrid genus formed between Carlus x Phillipus

Genus	UPOV Code
Carlus	CARLU_(linked to CAPHI_)
Phillipus	PHILL_(linked to CAPHI_)
Carlus x Phillipus	CAPHI_(linked to CARLU_ and PHILL_)

A search on 'CARLU' (Carlus) could be made to provide all varieties of Carlus and the hybrid genus Carlus x Phillipus. A search on 'PHILL' (Phillipus) could be made to provide all varieties of Phillipus and the hybrid genus Carlus x Phillipus. A search on 'CAPHI' (Carlus x Phillipus) could be made to provide all varieties of Carlus, Phillipus and the hybrid genus Carlus x Phillipus."

10. It is currently not possible to search on a UPOV code in GENIE and to choose to also receive the results on all "linked" UPOV codes as set out in Section 2.2.7. Furthermore, it is simple to make a search on the individual parent genera or species to reveal any hybrids containing those genera or species. Therefore, it is proposed to delete Section 2.2.7.

UPOV codes for hybrids: Binomial names

11. The Guide to the UPOV Code System refers to hybrids between species or genera that are "not taxonomically recognized in their own right". In accordance with the terminology used in GRIN, it is proposed to refer to hybrids for which there are "binomials" by amending the Guide to the UPOV Code System as follows:

"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 ~~which is taxonomically recognized in its own right~~ (e.g. ×*Triticosecale* [= *Triticum* x *Secale*]), the 'genus element' of the UPOV code is based on the binomial name ~~taxonomically recognized 'hybrid' genus~~. For example, ×*Triticosecale* 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 ~~which is not taxonomically recognized as a genus in its own right ('hybrid genus')~~, 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' ~~Carlus (UPOV code: CARLU) x Phillipus (UPOV code: PHILL) would have the UPOV code 'CAPHI'~~.

"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 ~~which is not taxonomically recognized as a species in its own right~~ ('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 ~~which is not taxonomically recognized as a genus in its own right~~, 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."

Variety Types

12. In recognition of the current situation, whereby there is no differentiation of "variety types", it is proposed to delete Section 2.4, which reads as follows:

"2.4 Variety Types [to be deleted]

"The basis of the UPOV code is a 'vertical' botanical classification and, therefore, the UPOV code is limited in its scope to differentiate, in a 'horizontal' way, types of variety (e.g. fruit varieties and ornamental varieties) which have the same botanical classification. However, it is possible to identify such 'types' within the GENIE database. Thus, if types are created within a UPOV code within the GENIE database, it would be possible, for example, to search 'MALUS' for all information related to apple, but also to refine the search, for example for all information which is specifically indicated as relating to fruit varieties only."

Publication of UPOV Codes

13. In recognition of the current availability of information on the UPOV website, it is proposed to amend Section 4, as follows::

"4. Publication of UPOV Codes

"4.1 As explained in Section 3.2, all UPOV codes can be accessed in the GENIE database, which is ~~made~~ available on the ~~freely accessible area of the~~ UPOV website (see http://www.upov.int/genie/en/).

"4.2 In addition, the UPOV codes, together with their relevant botanical and common names~~,~~ and variety denomination class ~~and linked hybrid/parent UPOV codes,~~ as contained in the GENIE database, are

published on ~~the first restricted area of~~ the UPOV website (see ~~http://www.upov.int/restrict/en/upov_rom_upov_code_system/index.htm~~ http://www.upov.int/genie/en/updates/). That information is published in a form that facilitates electronic downloading of the UPOV codes ~~for use by contributors to the UPOV ROM~~."

14. The comments of the TC at its forty-eighth session, to be held in Geneva from March 26 to 28, 2012, will be reported to the CAJ at its sixty-fifth session.

15. The CAJ is invited to consider the proposals to amend the Guide to the UPOV Code System, as set out in paragraphs 8, 10, 11, 12 and 13 of this document.

PLANT VARIETY DATABASE

Background

16. The CAJ agreed the proposals concerning the program for improvements to the Plant Variety Database, as set out in paragraph 21 of document CAJ/59/6, subject to the amendments specified in document CAJ/59/7 "Report on the Conclusions", paragraph 43. The program for improvements to the Plant Variety Database ("Program"), agreed on that basis, is provided in Annex II to this document, with the necessary updating of Section 1 of the Program concerning the name of the database (see paragraphs 21 and 22).

17. It is recalled that, at its seventy-sixth session, held in Geneva on October 29, 2008, the Consultative Committee, approved an arrangement between UPOV and the World Intellectual Property Organization (WIPO) (UPOV-WIPO arrangement), concerning the UPOV Plant Variety Database, as follows:

> "(a) WIPO to undertake the collation of data for the UPOV-ROM and to provide the necessary assistance to deliver the program of improvements concerning, in particular, options for receiving data for the UPOV-ROM in various formats and assistance in allocating UPOV codes to all entries (see documents CAJ/57/6, paragraphs 3 and 8 and TC/44/6, paragraphs 12 and 17). In addition, WIPO to undertake the development of a web-based version of the UPOV Plant Variety Database, and the facility to create CD-ROM versions of that database, and to provide the necessary technical support concerning the development of a common search platform (see documents CAJ/57/6, paragraphs 18 to 21 and TC/44/6, paragraphs 27 to 30)).
>
> "(b) UPOV to agree that data in the UPOV-ROM Plant Variety Database may be included in the WIPO Patentscope® search service. In the case of data provided by parties other than members of the Union (e.g. the Organisation for Economic Co-operation and Development (OECD)), permission for the data to be used in the WIPO Patentscope® search service would be a matter for the parties concerned."

18. In accordance with the UPOV-WIPO arrangement, Mr. José Appave, Senior Data Administration Clerk, Brand Database Unit, Global Databases Service, WIPO, has responsibility for collating all data for the UPOV-ROM Plant Variety Database (UPOV-ROM). The arrangements for providing data for the UPOV-ROM according to the Memorandum of Understanding between UPOV and the Community Plant Variety Office of the European Union (CPVO) ("UPOV-CPVO Memorandum") (see document CAJ/57/6, paragraph 6), are not affected by that development.

19. Also in accordance with the UPOV-WIPO arrangement, Mrs. Lili Chen, Software Developer, has been recruited to the Brand Database Unit, Global Databases Service, WIPO to work 100% of her time on the program for improvements to the Plant Variety Database, since May 1, 2010.

20. The following paragraphs provide an update on developments concerning the Program. In that regard, it is recalled that prioritization in 2011 was given to the development of a web-based version of the Plant Variety Database (see document TC/47/6, paragraph 20, and document CAJ/63/6, paragraph 17).

Title of the Plant Variety Database (Program: Section 1)

21. Section 1 of the Program states that the "[…] full name of the Plant Variety Database will be the 'VARDAT Plant Variety Database', abbreviated to VARDAT as appropriate". It was subsequently concluded that it would be beneficial to amend the name of the Plant Variety Database in order to enable a visual icon

to be associated with the database. The name of the Plant Variety Database has been changed to "PLUTO" (**PL**ant varieties in the **U**POV system: **T**he **O**mnibus).

Web-based version of the Plant Variety Database (Program: Section 6)

22. At its twenty-eighth extraordinary session, held in Geneva on April 8, 2011, the Council approved the launch of a web-based version of the Plant Variety Database and agreed that the web-based version of the Plant Variety Database (PLUTO Database) should be made freely accessible to all users (see document C(Extr.)/28/3 "Report on the Decisions", paragraph 13).

23. The PLUTO database was launched on the UPOV website on November 1, 2011. A presentation of the PLUTO database will be made at the sixty-fifth session of the CAJ.

24. At its sixty-fourth session, held in Geneva on October 17, 2011, the CAJ noted plans to develop a feature in the PLUTO database for variety denominations, which would include searching within a denomination class and which would also provide a similarity index. The feature would include the variety denomination searching tool developed by the Community Plant Variety Office of the European Union (CPVO) (see CAJ/64/11 "Report on the Conclusions", paragraph 27).

25. With regard to the PLUTO database, the following suggestions were made at the session for features to be included (see CAJ/64/11 "Report on the Conclusions", paragraph 28):

(a) information on the latest date of submission by the contributors;
(b) explanation of search rules; and
(c) facility to save search settings.

26. The CAJ agreed to invite the Consultative Committee, at its eighty–second session, held in Geneva on October 19 and on the morning of October 20, 2011, to consider whether to require users of the Plant Variety Database to register in order that the use of the Plant Variety Database could be monitored, with a view to using that feedback for future improvements. It was emphasized that this would still mean that the Plant Variety Database would still be freely accessible (see CAJ/64/11 "Report on the Conclusions", paragraph 29). At its eighty-second session, the Consultative Committee agreed to require users of the Plant Variety Database to register in order that the use of the Plant Variety Database could be monitored, with a view to using that feedback for future improvements. It was emphasized that this would mean that the Plant Variety Database would still be freely accessible.

27. The CAJ agreed that the Office of the Union should explore options for contributors to the Plant Variety Database to provide data in the original alphabet, in addition to the data being provided in Latin alphabet. It was agreed that all data would still be required in Latin alphabet and that a suitable encoding standard would be proposed for data provided in non-Latin alphabet (see document CAJ/64/11 "Report on the Conclusions", paragraph 30).

28. Annex IV to this document provides a proposal to amend the "Program for Improvements to the Plant Variety Database", as set out in Annex II to this document, with regard to Section 3.2 "Data quality and completeness" and Section 3.3 "Mandatory items", in order to introduce the possibility for contributors to the Plant Variety Database to provide data in the original alphabet, in addition to the data being provided in Latin alphabet. The basis of that proposal is that:

(a) the possibility to provide data in the original alphabet would be created for the following fields (see Section 3.2 "Data quality and completeness", Table):

(i) Species: common name (see new TAG <520>);
(ii) Denomination (see <550>, <551>, <552>, <553>);
(iii) Breeder's reference (see <650>);
(iv) Synonym of variety denomination (see <651>);
(v) Trade name (see <652>);
(vi) Applicant's name (see <750>);
(vii) Breeder's name (see <751>);
(viii) Maintainer's name (see <752>);
(ix) Title holder's name (see <753>);
(x) Type of other party (see <760>);

(xi) Other relevant information (see <950>); and
(xii) Remarks (see <960>); and

(b) data would not be included in the Plant Variety Database unless all data provided in the original alphabet was also provided in Latin alphabet (see Sections 3.2 and 3.3 "Required data").

29. A report on further developments concerning the features set out in paragraphs 24 to 28 will be made to the TC at its forty-eighth session, to be held in Geneva from March 26 to 28, 2012, and to the CAJ at its sixty-fifth session, to be held on March 29, 2012.

Provision of assistance to contributors (Program: Section 2)

30. Annex III to this document provides a summary of the contributions to the Plant Variety Database in 2011. During the course of 2011, the Office of the Union contacted the following members of the Union in order to investigate the arrangements that would be needed in order for them to start to contribute data:

Albania
Argentina
Azerbaijan
Belarus
Bolivia
China
Colombia
Costa Rica
Croatia
Dominican Republic
Georgia
Iceland
Jordan
Kenya
Kyrgyzstan
Mexico
Morocco
Nicaragua
Oman
Panama
Paraguay
Republic of Korea
Singapore
South Africa
Trinidad and Tobago
Tunisia
Ukraine
Uruguay
Uzbekistan
Viet Nam

31. In response to the approach above, the WIPO Brand Database Unit was contacted by the following members of the Union and has started to develop solutions to allow their contribution of data in non-TAG format:

Azerbaijan
Belarus
Israel
Japan
Kyrgyzstan
Mexico
Morocco
Singapore
South Africa
Uruguay
Viet Nam

32. With regard to contributors that did not provide UPOV codes for their data supplied, a method for providing missing UPOV codes for data submitted for the Plant Variety Database has been developed by the WIPO Brand Database Unit. That method was used to suggest UPOV codes for consideration by the contributors, in order that UPOV codes could be entered for all data in the Plant Variety Database.

33. With regard to the assistance provided to contributors, it is recalled that all contributors to the Plant Variety Database are responsible for the correctness and completeness of the data they supply (see Program, Section 2.4). In cases where assistance is provided to contributors, the contributor will continue to be responsible for the correctness and completeness of the data. Thus, contributors will always be requested to approve any suggested modifications of data they supply, including the addition or amendment of UPOV codes, before the data is entered in the Plant Variety Database.

34. A report on developments concerning the provision of assistance to contributors of data to the Plant Variety Database will be made to the TC at its forty-eighth session, and to the CAJ at sixty-fifth session.

Data to be included in the Plant Variety Database (Program: Section 3)

35. Section 3.4 "Dates of commercialization", of the Program states that an item will be created in the Plant Variety Database to allow for information to be provided on dates on which a variety was commercialized for the first time in the territory of application and other territories. Annex IV to this document provides a proposal to amend the "Program for Improvements to the Plant Variety Database", as set out in Annex II to this document, with regard to Section 3.2 "Data quality and completeness" (see new TAG <800>), in order to introduce the possibility for contributors to the Plant Variety Database to provide information on

dates on which a variety was commercialized for the first time in the territory of application and other territories.

Frequency of data submission (Program: Section 4)

36. Section 4 of the Program states that "the Plant Variety Database will be developed in such a way as to allow updating at any frequency determined by the members of the Union. Prior to completion and publication of the web-based version of the Plant Variety Database, no change is proposed to the frequency of updating, i.e. contributors will be requested to update their data on a bimonthly basis. Once that stage is complete, the TC and CAJ will be invited to consider whether to create possibilities for data to be updated on a more frequent basis."

37. The data included in the UPOV-ROM Plant Variety Database and the PLUTO database are the same and there are no plans to make any changes to the frequency for publication of that data, i.e. six updates per annum.

Common search platform (Program: Section 7)

38. There have been no substantial developments concerning the development of a common search platform since 2010. WIPO, CPVO, the Royal General Bulb Growers' Association (KAVB) (Netherlands) and the Commission for Nomenclature and Cultivar Registration of the International Society for Horticultural Science (ISHS) will be consulted on possible approaches later in 2012.

39. The comments of the TC at its forty-eighth session will be reported to the CAJ at its sixty-fifth session.

40. The CAJ is invited to:

(a) note the developments concerning the program for improvements to the Plant Variety Database, as reported in this document;

(b) note the reports on features concerning the PLUTO database and on the provision of assistance to contributors that will be made to the TC at its forty-eighth session and the CAJ at its sixty-fifth session;

(c) consider the proposal to amend the "Program for Improvements to the Plant Variety Database", as set out in Annex IV to this document, in order to introduce the possibility for contributors to the Plant Variety Database to provide data in the original alphabet, in addition to the data being provided in Latin alphabet (see also paragraph 28 of this document); and

(d) consider the proposal to amend the "Program for Improvements to the Plant Variety Database", as set out in Annex IV to this document, in order to allow contributors to the Plant Variety Database to provide information on dates on which a variety was commercialized for the first time in the territory of application and other territories (see also paragraph 35 of this document).

[Annexes follow]

ANNEX I

GUIDE TO THE UPOV CODE SYSTEM

1. Purpose

1.1 The main purpose of the UPOV Code System is to enhance the usefulness of the UPOV-ROM Plant Variety Database ("UPOV-ROM") by overcoming the problem of synonyms for plant taxa. That is achieved by attributing each taxa a code according to the UPOV Code System ("UPOV code"); synonyms for the same plant taxa are attributed the same UPOV code.

1.2 The UPOV Code System is employed in the GENIE database, which has been developed to provide, for example, online information on the status of protection (see document C/40/6), cooperation in examination (see document C/40/5), experience in DUS testing (see document TC/43/4), and existence of UPOV Test Guidelines (see document TC/43/2) for different GENera and specIEs (hence GENIE), and is also used to generate the relevant Council and Technical Committee (TC) documents concerning that information.

2. UPOV code construction

2.1 General basis

2.1.1 In general, the following UPOV code construction is used for the UPOV Code System:

(a) an alphabetic element of five letters (e.g. XXXXX) indicating the genus ("genus element");

(b) a three-letter element (e.g. YYY) indicating the species ("species element");

(c) where relevant, a further element of up to three characters (e.g. ZZ1) indicating a sub-specific unit ("sub-species element");

thus, XXXXX_YYY_ZZ1

2.1.2 In all cases, the five-letter genus element is to be provided, but the three-letter species element and the sub-specific element are only provided where necessary.

2.1.3 As far as possible, the elements try to follow the first letters of the botanical name of that element, e.g.:

Prunus	PRUNU_
Prunus armeniaca	PRUNU_ARM

2.1.4 In some cases, it is necessary to improvise to ensure that similar taxa have different UPOV codes (e.g. *Platycodon* = "PLTYC_" and *Platymiscium* = "PLTYM_"). In cases where the name is shorter than the UPOV code, the last letter of the name is repeated e.g. *Poa* = POAAA.

2.1.5 In the case of the sub-specific element, the UPOV code is used in a more flexible way to contain more than one level of ranking, thereby avoiding the need for extra elements in the UPOV code.

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, but which is taxonomically recognized in its own right (e.g. ×*Triticosecale* [= *Triticum* x *Secale*]), the "genus element" of the UPOV code is based on the taxonomically recognized "hybrid" genus. For example, ×*Triticosecale* has the UPOV code "TRITL".

2.2.3 In the case of a genus which is formed as a hybrid between two genera and which is not taxonomically recognized as a genus in its own right ("hybrid genus"), 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 *Carlus* (UPOV code: CARLU) x *Phillipus* (UPOV code: PHILL) would have the UPOV code "CAPHI".

2.2.4 In the case of a species which is formed as a hybrid between two species and which is not taxonomically recognized as a species in its own right ("hybrid species"), 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 which is not taxonomically recognized as a genus in its own right, 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 The approach for introducing UPOV codes for hybrid genera and species, as set out in paragraphs 2.2.3 to 2.2.5, means that the UPOV code will distinguish between two hybrids produced using the same parents, but with the male and female parents reversed, e.g.:

ALPHA_OTW: *Alpha one* (ALPHA_ONE)) x *Alpha two* (ALPHA_TWO)

ALPHA_TON: *Alpha two* (ALPHA_TWO) x *Alpha one* (ALPHA_ONE))

2.2.7 In the case of "hybrid" genus (or species) (i.e. which is not taxonomically recognized as a genus (or species) in its own right), the GENIE database contains a link between the "parent" genera (or species) and the "hybrid" genus or species. Thus, when searching in GENIE, it is possible to search on a UPOV code, but to choose to also receive the results on all "linked" UPOV codes:

Example: Hybrid genus formed between *Carlus* x *Phillipus*

Genus	UPOV Code
Carlus	CARLU_(*linked to* CAPHI_)
Phillipus	PHILL_(*linked to* CAPHI_)
Carlus x *Phillipus*	CAPHI_(*linked to* CARLU_ *and* PHILL_)

A search on "CARLU" *(Carlus*) could be made to provide all varieties of *Carlus* and the hybrid genus *Carlus* x *Phillipus.* A search on "PHILL" *(Phillipus)* could be made to provide all varieties of Phillipus and the hybrid genus *Carlus x Phillipus.* A search on "CAPHI" *(Carlus x Phillipus)* could be made to provide all varieties of *Carlus, Phillipus* and the hybrid genus *Carlus x Phillipus.*

2.3 Grouping classification: Brassica and Beta

A grouping classification is used for UPOV codes within *Beta vulgaris* and part of *Brassica oleracea*. To indicate that a grouping classification is being used for those two species, the first letter of the third element of the UPOV code starts with "G". A summary of the structuring of the species is presented below:

UPOV code	*Botanical name*	*Common name*
BETAA_VUL	**Beta vulgaris L.**	
BETAA_VUL_GV	**Beta vulgaris L. ssp. vulgaris**	**Beet**
BETAA_VUL_**G**VA	Beta vulgaris L. ssp. vulgaris var. alba DC.	Fodder beet
BETAA_VUL_**G**VC	Beta vulgaris L. ssp. vulgaris var. conditiva Alef.	Beetroot
BETAA_VUL_**G**VF	Beta vulgaris L. ssp. vulgaris var. flavescens DC.	Leaf beet
BETAA_VUL_**G**VS	Beta vulgaris L. ssp. vulgaris var. saccharifera Alef.	Sugar beet
BRASS_OLE_GA	**Brassica oleracea L. convar. acephala (DC.) Alef.**	**Kale**
BRASS_OLE_**G**AM	Brassica oleracea L. convar. acephala (DC.) Alef. var. medullosa Thell.	Marrow-stem kale

UPOV code	*Botanical name*	*Common name*
BRASS_OLE_**G**AR	Brassica oleracea L. var. ramosa DC.	Catjang
BRASS_OLE_**G**AS	Brassica oleracea L. convar. acephala (DC.) Alef. var. sabellica L.	Curly kale
BRASS_OLE_**G**AV	Brassica oleracea L. convar. acephala (DC.) Alef. var. viridis L.	Fodder kale
BRASS_OLE_GB	**Brassica oleracea L. convar. botrytis (L.) Alef.**	
BRASS_OLE_**G**BB	Brassica oleracea L. convar. botrytis (L.) Alef. var. botrytis	Cauliflower
BRASS_OLE_**G**BC	Brassica oleracea L. convar. botrytis (L.) Alef. var. cymosa Duch.	Broccoli
BRASS_OLE_GC	**Brassica oleracea L. convar. capitata (L.) Alef. var. capitata (L.) Alef.**	**Cabbage**
BRASS_OLE_**G**CA	Brassica oleracea L. convar. capitata (L.) Alef. var. capitata L. f. alba DC.	White cabbage
BRASS_OLE_**G**CR	Brassica oleracea L. convar. capitata (L.) Alef. var. capitata L. f. rubra (L.) Thell.	Red cabbage
BRASS_OLE_**G**CS	Brassica oleracea L. convar. capitata (L.) Alef. var. sabauda L.	Savoy cabbage
BRASS_OLE_GGM	**Brassica oleracea L. convar. oleracea var. gemmifera DC.**	**Brussels sprout**
BRASS_OLE_GGO	**Brassica oleracea L. convar. acephala (DC.) Alef. var. gongylodes L.**	**Kohlrabi**

2.4 Variety Types

The basis of the UPOV code is a “vertical” botanical classification and, therefore, the UPOV code is limited in its scope to differentiate, in a “horizontal” way, types of variety (e.g. fruit varieties and ornamental varieties) which have the same botanical classification. However, it is possible to identify such “types” within the GENIE database. Thus, if types are created within a UPOV code within the GENIE database, it would be possible, for example, to search “MALUS” for all information related to apple, but also to refine the search, for example for all information which is specifically indicated as relating to fruit varieties only.

3. Procedure for the introduction and amendment of UPOV codes

3.1 Responsibility for the UPOV Code System

The Office of the Union (Office) is responsible for the UPOV Code System and the individual UPOV codes.

3.2 Repository of UPOV Codes

The definitive collection of UPOV codes exists exclusively in the GENIE database.

3.3 Introduction of New UPOV Codes / Amendments to UPOV Codes

(a) In the first instance, the Office will create a UPOV code on the basis of the Germplasm Resources Information Network (GRIN) database[1], or other suitable references if the species concerned are not included in the GRIN database.

(b) Where the Office is aware of relevant experts for the genus or species concerned, or is advised of such experts, for example by the proposer of a new UPOV code, it will, wherever possible, check its proposals with those experts before creating the UPOV code.

(c) New UPOV codes might be proposed by any party, but it is expected that the majority of proposals will be made by contributors to the Plant Variety Database. Where the Office receives such proposals, it will respond by updating the GENIE database with the new UPOV codes in a timely manner and, in particular, will seek to ensure that new UPOV codes are available to allow their use for the forthcoming edition of the Plant Variety Database. In addition, the Office will add new UPOV codes where it identifies a need.

[1] USDA, ARS, National Genetic Resources Program. *Germplasm Resources Information Network - (GRIN)* [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. URL: http://www.ars-grin.gov/cgi-bin/npgs/html/tax_search.pl

(d) In general, amendments to UPOV codes will not be made as a result of taxonomic developments unless these result in a change to the genus classification of a species. The "Explanatory notes on variety denominations under the UPOV Convention" (document UPOV/INF/12/1) contain UPOV variety denomination classes; for genera and species not covered by the List of Classes in Annex I to document UPOV/INF/12/1, the general rule ("one genus / one class") is that a genus is considered to be a class (see document UPOV/INF/12/1, Section 2.5.2 and its Annex I). Therefore, it is important that the first element of the UPOV code can be used to sort species into the correct genus. The UPOV codes will also be amended if there are consequences for the content of a variety denomination class where the list of classes applies. Amendments to UPOV codes will be handled by the same procedure as the introduction of new UPOV codes as in paragraphs (a) and (b), above. However, in addition, all members of the Union and contributors of data to the Plant Variety Database will be informed of any amendments.

(e) New and amended UPOV codes will be presented to the relevant Technical Working Parties (TWP(s)) for comment at their first available session. If the TWP recommends any change, this will be treated as an amendment according to paragraph (d), above.

(f) Checking by Technical Working Party(ies): the Office determines the relevant TWP(s) for checking each UPOV code on the basis of available information.

(g) Checking by all authorities: all the experts of the relevant TWP(s) to be invited to check the UPOV codes where:

(i) many authorities (e.g. 10 or more) have practical experience in DUS testing (based on GENIE database / document TC/xx/4 (e.g. TC/43/4)), have provided interested experts in the drafting of relevant Test Guidelines and/or have protected varieties (based on Plant Variety Database (UPOV-ROM)); or

(ii) they concern genera or species for which a wide review is considered appropriate by the Office (e.g. because it concerns a proposal for a species or sub-species not previously recognized within the genus, or a proposal for restructuring of the UPOV code).

(h) Checking by specific authorities: in cases not covered by (g) above, the experts of the relevant TWP(s) of specific authorities will be invited to check the UPOV codes. The specific authorities being those which have practical DUS testing experience, have provided interested experts in the drafting of relevant Test Guidelines, or which have granted protection for varieties covered by the relevant UPOV code.

3.4 Updating of Information Linked to UPOV Codes

(a) UPOV codes might need to be updated to take account of, for example, changes in taxonomic classification, new information on common names, etc. In the case of changes of taxonomic classification, this might, although it is emphasized that this is not necessarily the case (see section 3.3 (d), above), result in a need to change the UPOV code. In such cases, the procedure is as explained in section 3.3, above. In other cases, the Office will amend the information linked to the existing UPOV code as appropriate.

(b) The TC, the TWPs and individual communications from members and observers of these bodies will be the principal routes by which the Office will update its information.

4. Publication of UPOV Codes

4.1 As explained in Section 3.2, all UPOV codes can be accessed in the GENIE database, which is made available on the freely accessible area of the UPOV website.

4.2 In addition, the UPOV codes, together with their relevant botanical and common names, variety denomination class and linked hybrid/parent UPOV codes, as contained in the GENIE database, are published on the first restricted area of the UPOV website (see http://www.upov.int/restrict/en/upov_rom_upov_code_system/index.htm). That information is published in a form that facilitates electronic downloading of the UPOV codes for use by contributors to the UPOV-ROM.

[Annex II follows]

ANNEX II

PROGRAM FOR IMPROVEMENTS TO THE PLANT VARIETY DATABASE

as approved by the Administrative and Legal Committee (CAJ), at its fifty-ninth session, held in Geneva on April 2, 2009

1. Title of the Plant Variety Database

In recognition of the intention to develop a web-based version of the Plant Variety Database, no reference will be made to the "UPOV-ROM". The full name of the Plant Variety Database will be the "VARDAT Plant Variety Database", abbreviated to VARDAT as appropriate.

2. Provision of assistance to contributors

2.1 The Office will continue to contact all members of the Union and contributors to the Plant Variety Database that do not provide data for the Plant Variety Database, do not provide data on a regular basis, or do not provide data with UPOV codes. In each case, they will be invited to explain the type of assistance that would enable them to provide regular and complete data for the Plant Variety Database.

2.2 In response to the needs identified by members of the Union and contributors to the Plant Variety Database in 2.1, the designated World Intellectual Property Organization (WIPO) staff, in conjunction with the Office, will seek to develop solutions for each of the Plant Variety Database contributors.

2.3 An annual report on the situation will be made to the Administrative and Legal Committee (CAJ) and Technical Committee (TC).

2.4 With regard to the assistance to be provided to contributors, the UPOV-ROM "General Notice and Disclaimer" states that "[…] All contributors to the UPOV-ROM are responsible for the correctness and completeness of the data they supply. […]". Thus, in cases where assistance is provided to contributors, the contributor will continue to be responsible for the correctness and completeness of the data.

3. Data to be included in the Plant Variety Database

3.1 Data format

3.1.1 In particular, the following data format options to be developed for contributing data to the Plant Variety Database:

(a) data in XML format;
(b) data in Excel spreadsheets or Word tables;
(c) data contribution by on-line web form;
(d) an option for contributors to provide only new or amended data

3.1.2 To consider, as appropriate, restructuring TAG items; for example, where parts of the field are mandatory and other parts not.

3.2 Data quality and completeness

The following data requirements to be introduced in the Plant Variety Database

TAG	Description of Item	Current Status	Proposed status	Database developments required
<000>	**Start of record and record status**	mandatory	**start of record to be mandatory**	mandatory, subject to development of facility to calculate record status (by comparison with previous data submission), if required
<190>	**Country or organization providing information**	mandatory	**mandatory**	data quality check: to verify against list of codes

TAG	Description of Item	Current Status	Proposed status	Database developments required
<010>	**Type of record and (variety) identifier**	mandatory	**both mandatory**	(i) meaning of "(variety) identifier" to be clarified in relation to item <210>; (ii) to review whether to continue type of record "BIL"; (iii) data quality check: to check against list of types of record
<500>	**Species--Latin name**	mandatory until UPOV code provided	**mandatory (even if UPOV code provided)**	
<509>	Species--common name in English	mandatory if no common name in national language (<510>) is given.	not mandatory	
<510>	Species--common name in national language other than English	mandatory if no English common name (<509>) is given	not mandatory	
<511>	**Species--UPOV Taxon Code**	mandatory	**mandatory**	(i) if requested, the Office to provide assistance to the contributor for allocating UPOV codes; (ii) data quality check: to check UPOV codes against the list of UPOV codes; (iii) data quality check: to check for seemingly erroneous allocation of UPOV codes (e.g. wrong code for species)
DENOMINATIONS				
<540>	**Date + denomination, proposed, first appearance or first entry in data base**	mandatory if no breeder's reference (<600>) is given	**(i) mandatory to have <540>, <541>, <542>, or <543 if <600> is not provided** (ii) date not mandatory	(i) to clarify meaning and rename; (ii) data quality check: mandatory condition in relation to other items
<541>	**Date + proposed denomination, published**		**see <540>**	(i) to clarify meaning and rename (ii) data quality check: mandatory condition in relation to other items
<542>	**Date + denomination, approved**	mandatory if protected or listed	**see <540>**	(i) to clarify meaning and rename; (ii) to allow for more than one approved denomination for a variety (i.e. where a denomination is approved but then replaced) (iii) data quality check: mandatory condition in relation to other items
<543>	**Date + denomination, rejected or withdrawn**		**see <540>**	(i) to clarify meaning and rename (ii) data quality check: mandatory condition in relation to other items
<600>	Breeder's reference	mandatory if existing	not mandatory	
<601>	Synonym of variety denomination		not mandatory	
<602>	Trade name		not mandatory	(i) to clarify meaning (ii) to allow multiple entries
<210>	**Application number**	mandatory if application exists	**mandatory if application exists**	to be considered in conjunction with <010>
<220>	Application/filing date	mandatory if application exists	**mandatory**	explanation to be provided if TAG<220> not completed
<400>	Publication date of data regarding the application (protection)/filing (listing)		not mandatory	

TAG	Description of Item	Current Status	Proposed status	Database developments required
<111>	**Grant number (protection)/registration number (listing)**	mandatory if existing	**(i) mandatory to have <111> / <151> / <610> or <620> if granted or registered** (ii) date not mandatory	(i) data quality check: mandatory condition in relation to other items; (ii) to resolve any inconsistencies concerning the status of TAG<220>
<151>	**Publication date of data regarding the grant (protection) / registration (listing)**		**see <111>**	data quality check: mandatory condition in relation to other items
<610>	**Start date--grant (protection)/registration (listing)**	mandatory if existing	**see <111>**	(i) data quality check: mandatory condition in relation to other items; (ii) data quality check: date cannot be earlier than <220>
<620>	**Start date--renewal of registration (listing)**		**see <111>**	(i) data quality check: mandatory condition in relation to other items: (ii) data quality check: date cannot be earlier than <610> (iii) to clarify meaning
<665>	Calculated future expiration date	mandatory if grant/listing	not mandatory	
<666>	Type of date followed by “End date”	mandatory if existing	not mandatory	
PARTIES CONCERNED				
<730>	**Applicant’s name**	mandatory if application exists	**mandatory if application exists**	
<731>	**Breeder's name**	mandatory	**mandatory**	to clarify meaning of “breeder” according to document TGP/5 (see <733>)
<732>	Maintainer's name	mandatory if listed	not mandatory	to be accompanied by start and end date (maintainer can change)
<733>	**Title holder's name**	mandatory if protected	**mandatory if protected**	(i) to clarify meaning of “title holder” according to document TGP/5 (see <731>) (ii) to be accompanied by start and end date (title holder can change)
<740>	Type of other party followed by party’s name		not mandatory	
INFORMATION REGARDING EQUIVALENT APPLICATIONS IN OTHER TERRITORIES				
<300>	Priority application: country, type of record, date of application, application number		not mandatory	
<310>	Other applications: country, type of record, date of application, application number		not mandatory	
<320>	Other countries: Country, denomination if different from denomination in application		not mandatory	
<330>	Other countries: Country, breeder's reference if different from breeder's reference in application		not mandatory	
<900>	Other relevant information (phrase indexed)		not mandatory	
<910>	Remarks (word indexed)		not mandatory	

TAG	Description of Item	Current Status	Proposed status	Database developments required
<920>	Tags of items of information which have changed since last transmission (optional)		not mandatory	to develop option to generate automatically (see 2.1.1.(a))
<998>	FIG		not mandatory	
<999>	Image identifier (for future use)		not mandatory	to create possibility to provide hyperlink to image (e.g. an authority's webpage)

3.3 Mandatory "items"

3.3.1 With respect to items that are indicated as "mandatory" in Section 3.2, data will not be excluded from the Plant Variety Database if that item is absent. However, a report of the non-compliances will be provided to the contributor.

3.3.2 A summary of non-compliances will be reported to the TC and CAJ on an annual basis.

3.4 Dates of commercialization

3.4.1 An item will be created in the Plant Variety Database to allow for information to be provided on dates on which a variety was commercialized for the first time in the territory of application and other territories, on the following basis:

Item <XXX>: dates on which a variety was commercialized for the first time in the territory of application and other territories (not mandatory)

	Comment
(i) Authority providing the [following] information	ISO two letter code
(ii) Territory of commercialization	ISO two letter code
(iii) Date on which the variety was commercialized* for the first time in the territory (* The term "commercialization" is used to cover "sold or otherwise disposed of to others, by or with the consent of the breeder, for purposes of exploitation of the variety" (Article 6(1) of the 1991 Act of the UPOV Convention) or "offered for sale or marketed, with the agreement of the breeder" (Article 6(1)(b) of the 1978 Act of the UPOV Convention), as appropriate.	according to the format YYYY[MMDD] (Year[MonthDay]): month and day will not be mandatory if not available
(iv) Source of information	mandatory for each entry in item <XXX>
(v) Status of information	mandatory for each entry in item <XXX> (to provide an explanation or a reference to where an explanation is provided (e.g. the website of the authority providing the data for this item)
Note: for the same application, the authority in (i) could provide more than one entry for items (ii) to (v). In particular, it could provide information on commercialization in the "territory of application", but also "other territories"	

3.4.2 The following disclaimer will appear alongside the title of the item in the database:

"The absence of information in [item XXX] does not indicate that a variety has not been commercialized. With regard to any information provided, attention is drawn to the source and status of the information as set out in the fields 'Source of information' and 'Status of information'. However, it should also be noted that the information provided might not be complete and accurate."

4. Frequency of data submission

The Plant Variety Database will be developed in such a way as to allow updating at any frequency determined by the members of the Union. Prior to completion and publication of the web-based version of

the Plant Variety Database, no change is proposed to the frequency of updating, i.e. contributors will be requested to update their data on a bimonthly basis. Once that stage is complete, the TC and CAJ will be invited to consider whether to create possibilities for data to be updated on a more frequent basis.

5. Discontinuation of inclusion of general information documents in UPOV-ROM

On the basis that such information is readily available on the UPOV website, the following general information documents will no longer be included in the UPOV-ROM:

Addresses of Plant Variety Protection Offices
List of members of the Union
Cover with some useful information
UPOV: What it is, what it does ("UPOV flyer")
List of UPOV publications

6. Web-based version of the Plant Variety Database

6.1 A web-based version of the Plant Variety Database will be developed. The possibility to create CD-ROM versions of the Plant Variety Database, without the need for the services of Jouve, will be developed in parallel to the web-based version of the database.

6.2 An update on the planned timetable for development of a web-based version of the Plant Variety Database will be provided to the TC and CAJ.

7. Common search platform

A report on developments concerning the development of a common search platform will be made to the TC and CAJ. Any proposals concerning a common search platform will be put forward for consideration by the TC and CAJ.

[Annex III follows]

ANNEX III

REPORT ON THE USE OF UPOV CODES BY MEMBERS OF THE UNION AND OTHER CONTRIBUTORS

	Contributor	Number of new contributions to the UPOV-ROM in 2011[2]	UPOV Coding of data
1.	Albania	–	-
2.	Argentina	0	-
3.	Australia	6	Yes
4.	*Austria	4	Yes
5.	Azerbaijan	-	-
6.	Belarus	-	-
7.	*Belgium	5	Yes
8.	Bolivia	-	-
9.	Brazil	3	Yes
10.	*Bulgaria	5	Yes
11.	Canada	6	Yes
12.	Chile	4	Yes
13.	China	-	-
14.	Colombia	0	No
15.	Costa Rica	-	-
16.	*Croatia	1	Yes
17.	*Czech Republic	6	Yes
18.	*Denmark	6	Yes
19.	Dominican Republic	-	-
20.	Ecuador	2	No
21.	*Estonia	4	Yes
22.	*European Union	6	Yes
23.	*Finland	4	Yes
24.	*France	6	Yes
25.	Georgia	-	-
26.	*Germany	6	Yes
27.	*Hungary	5	Yes
28.	*Iceland	1	Yes
29.	*Ireland	4	Yes
30.	Israel	1	-
31.	*Italy	4	Yes
32.	Japan	1	Yes
33.	Jordan	-	-
34.	Kenya	-	-

[2] 6 Indicates that new data was submitted for all six (6) new versions of the UPOV-ROM issued in 2011.

– Do not currently provide data for the UPOV-ROM.

* Data provided via the CPVO.

	Contributor	Number of new contributions to the UPOV-ROM in 2011[2]	UPOV Coding of data
35.	Kyrgyzstan	0	-
36.	*Latvia	3	Yes
37.	*Lithuania	3	Yes
38.	Mexico	-	-
39.	Moldova	1	Yes
40.	Morocco	-	-
41.	*Netherlands	5	Yes
42.	New Zealand	6	Yes
43.	Nicaragua	-	-
44.	*Norway	4	Yes
45.	Oman	-	-
46.	Panama	-	-
47.	Paraguay	-	-
48.	Peru	-	-
49.	*Poland	4	Yes
50.	*Portugal	2	Yes
51.	Republic of Korea	4	No
52.	*Romania	3	Yes
53.	Russian Federation	5	Yes
54.	Singapore	-	-
55.	*Slovakia	4	Yes
56.	*Slovenia	3	Yes
57.	South Africa	-	-
58.	*Spain	6	Yes
59.	*Sweden	4	Yes
60.	*Switzerland	4	Yes
61.	The former Yugoslav Republic of Macedonia	-	-
62.	Trinidad and Tobago	-	-
63.	Tunisia	-	-
64.	Turkey	3	Yes
65.	Ukraine	-	-
66.	*United Kingdom	6	Yes
67.	United States of America	6	Yes
68.	Uruguay	-	-
69.	Uzbekistan	-	-
70.	Viet Nam	-	-
71.	OECD	2	Yes

[Annex IV follows]

ANNEX IV

PROGRAM FOR IMPROVEMENTS TO THE PLANT VARIETY DATABASE

as approved by the Administrative and Legal Committee (CAJ), at its fifty-ninth session, held in Geneva on April 2, 2009

PROPOSED AMENDMENTS

Proposed amendments (additions) are highlighted

[…]

3. Data to be included in the Plant Variety Database

3.1 Data format

3.1.1 In particular, the following data format options to be developed for contributing data to the Plant Variety Database:

(a) data in XML format;
(b) data in Excel spreadsheets or Word tables;
(c) data contribution by on-line web form;
(d) an option for contributors to provide only new or amended data

3.1.2 To consider, as appropriate, restructuring TAG items; for example, where parts of the field are mandatory and other parts not.

3.1.3 Subject to Section 3.1.4, the character set for data shall be the ASCII [American Standard Code for Information Interchange] representation, as defined in ISO [International Standards Organization] Standard 646. Special characters, symbols or accents (˜, ˆ, ¨, º, etc.) are not accepted. Only characters of the English alphabet may be used.

3.1.4 In the case of data submitted for TAG <520>, <550>, <551>, <552>, <553>, <650> <651>, <652>, <750>, <751>, <752>, <753>, <760>, <950> and <960>, the data must be submitted in Unicode Transformation Format-8 (UTF-8).

3.2 Data quality and completeness

The following data requirements to be introduced in the Plant Variety Database

TAG	Description of Item	Current Status	Proposed status	Database developments required
<000>	**Start of record and record status**	mandatory	**start of record to be mandatory**	mandatory, subject to development of facility to calculate record status (by comparison with previous data submission), if required
<190>	**Country or organization providing information**	mandatory	**mandatory**	data quality check: to verify against list of codes
<010>	**Type of record and (variety) identifier**	mandatory	**both mandatory**	(i) meaning of "(variety) identifier" to be clarified in relation to item <210>; (ii) to review whether to continue type of record "BIL"; (iii) data quality check: to check against list of types of record
<500>	**Species--Latin name**	mandatory until UPOV code provided	**mandatory (even if UPOV code provided)**	
<509>	Species--common name in English	mandatory if no common name in national language (<510>) is given.	not mandatory	

TAG	Description of Item	Current Status	Proposed status	Database developments required
<510>	Species--common name in national language other than English	mandatory if no English common name (<509>) is given	REQUIRED if <520> is provided	
<520>	Species--common name in national language other than English in Non-Latin alphabet		not mandatory	
<511>	**Species--UPOV Taxon Code**	mandatory	**mandatory**	(i) if requested, the Office to provide assistance to the contributor for allocating UPOV codes; (ii) data quality check: to check UPOV codes against the list of UPOV codes; (iii) data quality check: to check for seemingly erroneous allocation of UPOV codes (e.g. wrong code for species)
DENOMINATIONS				
<540>	**Date + denomination, proposed, first appearance or first entry in data base**	mandatory if no breeder's reference (<600>) is given	**(i) mandatory to have <540>, <541>, <542>, or <543> if <600> is not provided** (ii) date not mandatory (iii) REQUIRED if <550>, <551>, <552> or <553> are provided	(i) to clarify meaning and rename; (ii) data quality check: mandatory condition in relation to other items
<550>	Date + denomination, proposed, first appearance or first entry in data base in Non-Roman alphabet		not mandatory	
<541>	**Date + proposed denomination, published**		**see <540>**	(i) to clarify meaning and rename (ii) data quality check: mandatory condition in relation to other items
<551>	Date + proposed denomination, published in Non-Roman alphabet		not mandatory	
<542>	**Date + denomination, approved**	mandatory if protected or listed	**see <540>**	(i) to clarify meaning and rename; (ii) to allow for more than one approved denomination for a variety (i.e. where a denomination is approved but then replaced) (iii) data quality check: mandatory condition in relation to other items
<552>	Date + denomination, approved in Non-Roman alphabet		not mandatory	
<543>	**Date + denomination, rejected or withdrawn**		**see <540>**	(i) to clarify meaning and rename (ii) data quality check: mandatory condition in relation to other items
<553>	Date + denomination, rejected or withdrawn in Non-Roman alphabet		not mandatory	
<600>	Breeder's reference	mandatory if existing	REQUIRED if <650> is provided	
<650>	Breeder's reference in Non-Roman alphabet		not mandatory	

TAG	Description of Item	Current Status	Proposed status	Database developments required
<601>	Synonym of variety denomination		REQUIRED if <651> is provided	
<651>	Synonym of variety denomination in Non-Roman alphabet		not mandatory	
<602>	Trade name		REQUIRED if <652> is provided	(i) to clarify meaning (ii) to allow multiple entries
<652>	Trade name in Non-Roman alphabet		not mandatory	
<210>	**Application number**	mandatory if application exists	**mandatory if application exists**	to be considered in conjunction with <010>
<220>	Application/filing date	mandatory if application exists	**mandatory**	explanation to be provided if TAG<220> not completed
<400>	Publication date of data regarding the application (protection)/filing (listing)		not mandatory	
<111>	**Grant number (protection)/registration number (listing)**	mandatory if existing	**(i) mandatory to have <111> / <151> / <610> or <620> if granted or registered** (ii) date not mandatory	(i) data quality check: mandatory condition in relation to other items; (ii) to resolve any inconsistencies concerning the status of TAG<220>
<151>	**Publication date of data regarding the grant (protection) / registration (listing)**		**see <111>**	data quality check: mandatory condition in relation to other items
<610>	**Start date--grant (protection)/registration (listing)**	mandatory if existing	**see <111>**	(i) data quality check: mandatory condition in relation to other items; (ii) data quality check: date cannot be earlier than <220>
<620>	**Start date--renewal of registration (listing)**		**see <111>**	(i) data quality check: mandatory condition in relation to other items: (ii) data quality check: date cannot be earlier than <610> (iii) to clarify meaning
<665>	Calculated future expiration date	mandatory if grant/listing	not mandatory	
<666>	Type of date followed by "End date"	mandatory if existing	not mandatory	
PARTIES CONCERNED				
<730>	**Applicant's name**	mandatory if application exists	**mandatory if application exists or** REQUIRED if <750> is provided	
<750>	Applicant's name in Non-Roman alphabet		Not mandatory	
<731>	**Breeder's name**	mandatory	**mandatory**	to clarify meaning of "breeder" according to document TGP/5 (see <733>)
<751>	Breeder's name in Non-Roman alphabet		Not mandatory	
<732>	Maintainer's name	mandatory if listed	REQUIRED if <752> is provided	to be accompanied by start and end date (maintainer can change)
<752>	Maintainer's name in Non-Roman alphabet		Not mandatory	
<733>	**Title holder's name**	mandatory if protected	**mandatory if protected** or REQUIRED if <753> is provided	(i) to clarify meaning of "title holder" according to document TGP/5 (see <731>) (ii) to be accompanied by start and end date (title holder can change)

TAG	Description of Item	Current Status	Proposed status	Database developments required
<753>	Title holder's name in Non-Roman alphabet		Not mandatory	
<740>	Type of other party followed by party's name		REQUIRED if <760> is provided	
<760>	Type of other party followed by party's name in Non-Roman alphabet		not mandatory	
INFORMATION REGARDING EQUIVALENT APPLICATIONS IN OTHER TERRITORIES				
<300>	Priority application: country, type of record, date of application, application number		not mandatory	
<310>	Other applications: country, type of record, date of application, application number		not mandatory	
<320>	Other countries: Country, denomination if different from denomination in application		not mandatory	
<330>	Other countries: Country, breeder's reference if different from breeder's reference in application		not mandatory	
<900>	Other relevant information (phrase indexed)		REQUIRED if <950> is provided	
<950>	Other relevant information (phrase indexed) in Non-Roman alphabet		not mandatory	
<910>	Remarks (word indexed)		REQUIRED if <960> is provided	
<960>	Remarks (word indexed) in Non-Roman alphabet		not mandatory	
<920>	Tags of items of information which have changed since last transmission (optional)		not mandatory	to develop option to generate automatically (see 2.1.1.(a))
<998>	FIG		not mandatory	
<999>	Image identifier (for future use)		not mandatory	to create possibility to provide hyperlink to image (e.g. an authority's webpage)
DATES OF COMMERCIALIZATION				
<800>	Commercialization dates		not mandatory	

<800> example: "AB CD 20120119 source status"
or "AB CD 2012 source status"

3.3 Mandatory and REQUIRED "items"

3.3.1 With respect to items that are indicated as "mandatory" in Section 3.2, data will not be excluded from the Plant Variety Database if that item is absent. However, a report of the non-compliances will be provided to the contributor.

3.3.2 A summary of non-compliances will be reported to the TC and CAJ on an annual basis.

3.3.3 With respect to items that are indicated as "REQUIRED" in Section 3.2, data will be excluded from the Plant Variety Database if the required item is absent in Latin alphabet.

[…]

[End of Annex IV and of document]