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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
GENEVA

TECHNICAL COMMITTEE

Forty-Sixth Session
Geneva, March 22 to 24, 2010

VARIETY DENOMINATIONS

Document prepared by the Office of the Union

1. The purpose of this document is to:
 - (a) report on the adoption by the Council of the revision of UPOV/INF/12 “Explanatory Notes on Variety Denominations under the UPOV Convention (document UPOV/INF/12/2);
 - (b) to consider a proposal for a future revision of document UPOV/INF/12 Annex I, Part I “Classes within a genus” (reproduced in the Annex to this document), with regard to Class 4.1 *Solanum tuberosum* L. / Class 4.2 *Solanum* other than Class 4.1; and
 - (c) to consider a proposal for a future revision of document UPOV/INF/12 Annex I, Part II “Classes encompassing more than one genus” (reproduced in the Annex to this document), with regard to the creation of a new class for *Verbena* and *Glandularia*.

Adoption of document UPOV/INF/12/2 “Explanatory Notes on Variety Denominations under the UPOV Convention” (Revision)

2. The Council, at its forty-third ordinary session, held in Geneva on October 22, 2009, noted that the Administrative and Legal Committee (CAJ), at its sixtieth session held in Geneva on October 19, 2009, had endorsed the proposal by the Technical Committee (TC), at its forty-fifth session, held in Geneva from March 30 to April 1, 2009, that Class 202 in document UPOV/INF/12/1, Annex I, Part II “Classes encompassing more than one genus”, be

extended to cover *Megathyrsus*, *Panicum*, *Setaria* and *Steinchisma*, and that Class 211 should be modified to cover all species of *Agaricus*, *Agrocybe*, *Auricularia*, *Dictyophora*, *Flammulina*, *Ganoderma*, *Grifola*, *Hericium*, *Hypsizigus*, *Lentinula*, *Lepista*, *Lyophyllum*, *Meripilus*, *Mycoleptodonoides*, *Naematoloma*, *Panellus*, *Pholiota*, *Pleurotus*, *Polyporus*, *Sparassis* and *Tricholoma*, and that the name of Class 211 should be changed to “Class 211 (Mushrooms)”. The Council adopted document UPOV/INF/12/2 “Explanatory Notes on Variety Denominations under the UPOV Convention” on that basis.

3. At the sixtieth session of the CAJ, the Delegation of the Russian Federation proposed that the UPOV code for “*Lentinula edodes*”, in Class 211 in document UPOV/INF/12/1, Annex I, Part II “Classes encompassing more than one genus”, should be checked. The Office of the Union agreed to check the validity of the UPOV code. However it was noted that that would not affect the wording of the proposal in document UPOV/INF/12/2 Draft 1, which would be presented to the Council for adoption at its forty-third ordinary session, which would be held in Geneva on October 22, 2009. The UPOV code and botanical name for “*Lentinula edodes*” is considered under agenda item 9 “UPOV information databases” (see document TC/46/6, paragraphs 12 to 18).

4. *The TC is invited to:*

(a) *note the adoption of document UPOV/INF/12/2 “Explanatory Notes on Variety Denominations under the UPOV Convention” (revision); and*

(b) *note that the UPOV code and botanical name for “Lentinula edodes” will be considered under agenda item 9 “UPOV information databases”.*

Document UPOV/INF/12, Annex I, Part I:

Class 4.1 *Solanum tuberosum* L. / Class 4.2 *Solanum* other than Class 4.1

5. Until 2008, the recognized botanical name for Tomato in the GRIN database¹ was “*Lycopersicon esculentum* Mill.”. On that basis, the UPOV code was established as “LYCOP_ESC” and Tomato followed the General Rule (“one genus / one class”) for variety denomination purposes (see document UPOV/INF/12/2, paragraph 2, Section 2.5.2).

6. However, in September 2008, in response to taxonomic developments, GRIN removed the genus *Lycopersicon* and amended its botanical classification of Tomato to “*Solanum lycopersicum* var. *lycopersicum*”.

7. In accordance with the “Guide to the UPOV Code System” (extract reproduced below), it is proposed that, for UPOV purposes, there be a reclassification of “*Lycopersicon esculentum* Mill.” (UPOV code: LYCOP_ESC) to “*Solanum lycopersicum* var. *lycopersicum*” (UPOV code: SOLAN_LYC_LYC).

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

(Extract from the “Guide to the UPOV Code System”)
(http://www.upov.int/genie/en/upov_code.html)

“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, 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.

[...]

“(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.”

8. As indicated in the “Guide to the UPOV Code System” (see Section 3.3 (d), reproduced above), such a reclassification would also need to be considered in relation to the variety denomination class. In addition, a number of other species in the UPOV GENIE database, which were previously classified as “*Lycopersicon*”, with corresponding UPOV codes, have also been reclassified and the genus “*Cyphomandra*” was also reclassified within the genus “*Solanum*”. A review of the GENIE database revealed that the following classifications are affected:

<u>GENIE database</u>	<u>UPOV code</u>	<u>GRIN database</u>
<u>Lycopersicon</u>		
<i>Lycopersicon</i>		all species removed
<i>Lycopersicon esculentum</i> Mill.	LYCOP_ESC	<i>Solanum lycopersicum</i> var. <i>lycopersicum</i>
<i>Lycopersicon esculentum</i> Mill. var. <i>esculentum</i>	LYCOP_ESC_ESC	
<i>Lycopersicon esculentum</i> Mill. var. <i>cerasiforme</i> (Dunal) A. Gray	LYCOP_ESC_CER	<i>Solanum lycopersicum</i> var. <i>cerasiforme</i> (Alef.) Fosberg

<i>Lycopersicon hirsutum</i> Dunal	LYCOP_HIR	<i>Solanum habrochaites</i> S. Knapp & D. M. Spooner
<i>Lycopersicon lycopersicum</i> (L.) Karst. ex. Farw. x <i>Lycopersicon hirsutum</i> L.	LYCOP_EHI	no hybrid binomial
<u>Cyphomandra</u>		
Cyphomandra	CYPHO	all species removed
<i>Cyphomandra betacea</i> (Cav.) Sendtn. (synonym <i>Solanum betaceum</i> Cav.)	CYPHO_BET	<i>Solanum betaceum</i> Cav.
<u>Hybrid genus</u>		
<i>Lycopersicon</i> x <i>Cyphomandra</i>	LYCYP	<i>Solanum</i> L.
<i>Lycopersicon lycopersicum</i> x <i>Cyphomandra betacea</i>	LYCYP_EBE	to be investigated

9. It is proposed that corresponding changes would be made to the UPOV codes and variety denomination classes for these genera and species. However, in the case of *Lycopersicon* x *Cyphomandra*, no entries were found in the UPOV-ROM or GENIE database; therefore, the UPOV codes will be deleted.

10. The following information is provided to facilitate the consideration of such a change:

<u>Genus / species</u>	<u>Number of Entries in UPOV-ROM: Version 2009/01</u>
<u>Class: Lycopersicon</u>	
<i>Lycopersicon esculentum</i> Mill. / <i>Lycopersicon lycopersicum</i> (L) (synonyms)	14,245
Lycopersicon (probably <i>Lycopersicon esculentum</i> Mill.)	571
<i>Lycopersicon hirsutum</i>	4
<u>Class: Cyphomandra</u>	
<i>Cyphomandra betacea</i> (Cav.) Sendtn.	5
<u>Class 4.1: <i>Solanum tuberosum</i> L.</u>	
<i>Solanum tuberosum</i> L.	12,925

<u>Class 4.2: <i>Solanum</i> other than class 4.1</u>	
<i>Solanum aviculare</i>	1
<i>Solanum diflorum</i> Vell.	4
<i>Solanum glaucophyllum</i> Desf.	1
<i>Solanum jasminoides</i> Paxt.	4
<i>Solanum</i> L.	59
<i>Solanum melongena</i> L.	945
<i>Solanum muricatum</i>	15
<i>Solanum pseudocapsicum</i>	7
<i>Solanum quitoense</i> Lam.	2
<i>Solanum rantonetii</i>	6
<i>Solanum sisymbriifolium</i> Lam.	7

11. As indicated in the table above, one of the most significant effects of the change of denomination class for tomato would be that it would be moved to the same denomination class as *Solanum melongena* L. (Aubergine).

12. The taxonomic developments concerning the genus *Lycopersicon* and *Cyphomandra* were not known at the time of the sessions of the Technical Working Party for Vegetables (TWV) and the Technical Working Party on Automation and Computer Programs (TWC) held in 2009. However, the developments above were reported to the other Technical Working Parties (TWPs) at their sessions in 2009 and to the CAJ at its sixtieth session.

13. The Technical Working Party for Agricultural Crops (TWA), at its thirty-eighth session, held in Seoul, Republic of Korea, from August 31 to September 4, 2009, proposed that a separate denomination class be created within *Solanum* (e.g. Class 4.3) for Tomato, in order to avoid difficulties for denominations for other species (e.g. *Solanum melongena* L.) within *Solanum* (see document TWA/38/17 “Report”, paragraph 41).

14. The Technical Working Party for Ornamental Plants and Forest Trees (TWO), at its forty-second session, held in Angers, France, from September 14 to 18, 2009, supported the proposal of the TWA, that a separate denomination class for Tomato be created within *Solanum* (e.g. Class 4.3), in order to avoid difficulties for denominations for other species within *Solanum*. It further suggested that a separate denomination class might be considered for *Solanum melongena* L., in order to avoid varieties of ornamental species of *Solanum* L. needing different denominations to varieties of *Solanum melongena* L. (see document TWO/42/18 “Report”, paragraph 58).

15. The Technical Working Party for Fruit Crops (TWF), at its fortieth session, held in Angers, France, from September 21 to 25, 2009, supported the proposal of the TWA, that a separate denomination class for Tomato be created within *Solanum* (e.g. Class 4.3), in order to avoid difficulties for denominations for other species within *Solanum*. It also agreed with the proposal of the TWO that a separate denomination class might be considered for *Solanum melongena* L., in order to avoid varieties of former species of *Cyphomandra* needing different denominations to varieties of *Solanum melongena* L. (see document TWF/40/17 “Report”, paragraph 56).

16. The CAJ, at its sixtieth session, held in Geneva on October 19 and 20, 2009, noted the developments concerning the botanical reclassification of *Lycopersicon*, including *Lycopersicon esculentum* Mill. (Tomato), and *Cyphomandra* and the implications concerning denomination classes, which would be considered by the TC at its forty-sixth session, as set out in paragraphs 21 to 28 of document CAJ/60/4 (see document CAJ/60/10 “Report on the Conclusions”, paragraph 28).

17. On the basis of the comments of the TWA, TWO and TWF, and subject to the amendment of UPOV codes as set out in paragraphs 7 to 9, the following amendments are proposed to document UPOV/INF/12/2 Annex I, Part I “Classes within a genus” (reproduced in the Annex to this document), with regard to Class 4.1 *Solanum tuberosum* L. / Class 4.2 *Solanum* other than Class 4.1.

Current class 4

	<u>Botanical names</u>	<u>UPOV codes</u>
Class 4.1	<i>Solanum tuberosum</i> L.	SOLAN_TUB
Class 4.2	<i>Solanum</i> other than class 4.1	other than class 4.1

Proposed new class 4

	<u>Botanical names</u>	<u>UPOV codes</u>
Class 4.1	<i>Solanum tuberosum</i> L.	SOLAN_TUB
Class 4.2	<i>Solanum lycopersicum</i> var. <i>lycopersicum</i>	SOLAN_LYC_LYC
Class 4.3	<i>Solanum melongena</i> L.	SOLAN_MEL
Class 4.4	<i>Solanum</i> other than classes 4.1, 4.2 and 4.3	other than classes 4.1, 4.2 and 4.3

18. As indicated in paragraph 17, such a proposal would need to be made in conjunction with the proposal to amend the UPOV codes as set out in paragraphs 7 to 9. In particular, in order to avoid confusion regarding variety denomination classes, it is proposed that any amendment to UPOV/INF/12/2 Annex I, Part I, Class 4 should be simultaneous with amendments to the UPOV codes as set out in paragraphs 7 to 9.

19. With regard to the timetable for a revision of UPOV/INF/12/2 “Explanatory Notes on Variety Denominations under the UPOV Convention”, it is proposed that any proposals developed by the TC are considered by the TWPs at their sessions in 2010 and by the CAJ at its sixty-first session. Subject to agreement of those proposals, the Council would be invited to adopt a revision of document UPOV/INF/12/2 at its forty-fourth ordinary session, to be held in Geneva on October 21, 2010.

20. *The TC is invited to:*

(a) *consider the proposed amendment to document UPOV/INF/12/2 Annex I, Part I*

“Classes within a genus”, Class 4, as set out in paragraph 17;

(b) consider the proposed amendment to UPOV codes, as set out in paragraphs 7 to 9; and

(c) if appropriate, to request the CAJ to consider the proposed amendment to document UPOV/INF/12/2 Annex I, Part I “Classes within a genus”, Class 4, as set out in paragraph 17 and, subject to approval by the TWPs at their sessions in 2010, to propose to the Council to amend the “Explanatory Notes on Variety Denominations under the UPOV Convention”, document UPOV/INF/12/2, and to amend the corresponding UPOV codes, as set out in paragraphs 18 and 19.

Document UPOV/INF/12, Annex I, Part II “Classes encompassing more than one genus”:
new class for *Verbena* and *Glandularia*

21. The TWO, at its forty-second session, received a report from an expert from the European Union on problems concerning the classification of hybrids between species of *Verbena* L. and *Glandularia* J. F. Gmel.. Such hybrids were variously entered in the UPOV-ROM Plant Variety Database (UPOV-ROM) as *Verbena* L. (UPOV code: VERBE), *Glandularia* J. F. Gmel. (UPOV code: GLAND) or *Glandularia* ×*hybrida* (GLAND_HYB). GRIN indicates that *Glandularia* J. F. Gmel. is sometimes included in *Verbena* L. (see <http://www.ars-grin.gov/cgi-bin/npgs/html/genus.pl?14656>). Given that *Verbena* L. and *Glandularia* J. F. Gmel. follow the general rule (“one genus / one class”) (see document UPOV/INF/12/1, Annex I), whereby a genus is considered to be a denomination class, that means that the same hybrids can be placed in the different denomination classes by different authorities.

22. The TWO agreed to propose the creation of a new variety denomination class (Class 212) for *Verbena* L. and *Glandularia* J. F. Gmel. in document UPOV/INF/12 “Explanatory Notes on Variety Denominations under the UPOV Convention”, Annex I, Part II “Classes encompassing more than one genus”.

23. With regard to the timetable for such a revision of UPOV/INF/12/2 “Explanatory Notes on Variety Denominations under the UPOV Convention”, it is proposed that any proposals developed by the TC are considered by the TWPs at their sessions in 2010 and by the CAJ at its sixty-first session. Subject to agreement of those proposals, the Council would be invited to adopt a revision of document UPOV/INF/12/2 at its forty-fourth ordinary session, to be held in Geneva on October 21, 2010.

24. *The TC is invited to:*

(a) consider the proposed amendment to document UPOV/INF/12/2 Annex I, Part II “Classes encompassing more than one genus” in order to include a new class (Class 212) for Verbena L. and Glandularia J. F. Gmel., as set out in paragraph 22; and

(b) if appropriate, to request the CAJ to consider the proposed amendment to document UPOV/INF/12/2 Annex I, Part II “Classes encompassing more than one genus”, as set out in paragraph 23 and, subject to approval by the TWPs at their sessions in 2010, to propose to the Council to amend document UPOV/INF/12/2 Annex I, Part II “Classes encompassing more than one genus” accordingly.

[Annex follows]

ANNEX

**EXPLANATORY NOTES ON VARIETY DENOMINATIONS
UNDER THE UPOV CONVENTION
(Annex I of document UPOV/INF/12/2 (Extract))**

UPOV Variety Denomination Classes:
A Variety Denomination Should not be Used More than Once in the Same Class

For the purposes of providing guidance on the third and fourth sentences of paragraph 2 of Article 20 of the 1991 Act and of Article 13 of the 1978 Act and the 1961 Convention, variety denomination classes have been developed. A variety denomination should not be used more than once in the same class. The classes have been developed such that the botanical taxa within the same class are considered to be closely related and/or liable to mislead or to cause confusion concerning the identity of the variety.

The variety denomination classes are as follows:

- (a) General Rule (one genus / one class): for genera and species not covered by the List of Classes in this Annex, a genus is considered to be a class;
- (b) Exceptions to the General Rule (list of classes):
 - (i) classes within a genus: List of classes in this Annex: Part I;
 - (ii) classes encompassing more than one genus: List of classes in this Annex: Part II.

LIST OF CLASSES

Part I
Classes within a genus

	<u>Botanical names</u>	<u>UPOV codes</u>
Class 1.1	Brassica oleracea	BRASS_OLE
Class 1.2	Brassica other than Brassica oleracea	other than BRASS_OLE
Class 2.1	Beta vulgaris L. var. alba DC., Beta vulgaris L. var. altissima	BETAA_VUL_GVA; BETAA_VUL_GVS
Class 2.2	Beta vulgaris ssp. vulgaris var. conditiva Alef. (syn.: B. vulgaris L. var. rubra L.), B. vulgaris L. var. cicla L., B. vulgaris L. ssp. vulgaris var. vulgaris	BETAA_VUL_GVC; BETAA_VUL_GVF
Class 2.3	Beta other than classes 2.1 and 2.2.	other than classes 2.1 and 2.2
Class 3.1	Cucumis sativus	CUCUM_SAT
Class 3.2	Cucumis melo	CUCUM_MEL
Class 3.3	Cucumis other than classes 3.1 and 3.2	other than classes 3.1 and 3.2
Class 4.1	Solanum tuberosum L.	SOLAN_TUB
Class 4.2	Solanum other than class 4.1	other than class 4.1

EXPLANATORY NOTES ON VARIETY DENOMINATIONS
UNDER THE UPOV CONVENTION
(Annex I of document UPOV/INF/12/2 (Extract))

UPOV Variety Denomination Classes:
A Variety Denomination Should not be Used More than Once in the Same Class

LIST OF CLASSES (Continuation)
Part II
Classes encompassing more than one genus

	<u>Botanical names</u>	<u>UPOV codes</u>
Class 201	Secale, Triticale, Triticum	SECAL; TRITL; TRITI
Class 202	Megathyrus, Panicum, Setaria, Steinchisma	MEGAT; PANIC; SETAR; STEIN
Class 203*	Agrostis, Dactylis, Festuca, Festulolium, Lolium, Phalaris, Phleum and Poa	AGROS; DCTLS; FESTU; FESTL; LOLIU; PHALR; PHLEU; POAAA
Class 204*	Lotus, Medicago, Ornithopus, Onobrychis, Trifolium	LOTUS; MEDIC; ORNTP; ONOBR; TRFOL
Class 205	Cichorium, Lactuca	CICHO; LACTU
Class 206	Petunia and Calibrachoa	PETUN; CALIB
Class 207	Chrysanthemum and Ajanía	CHRYS; AJANI
Class 208	(Statice) Goniolimon, Limonium, Psylliostachys	GONIO; LIMON; PSYLL
Class 209	(Waxflower) Chamelaucium, Verticordia	CHMLC; VERTI; VECHM
Class 210	Jamesbrittania and Sutera	JAMES; SUTER
Class 211	(Mushrooms) Agaricus Agrocybe Auricularia Dictyophora Flammulina Ganoderma Grifola Heridium Hypsizigus Lentinula Lepista Lyophyllum Meripilus Mycoleptodonoides Naematoloma Panellus Pholiota Pleurotus Polyporus Sparassis Tricholoma	AGARI AGROC AURIC DICTP FLAMM GANOD GRIFO HERIC HYPSE LENTI LEPIS LYOPH MERIP MYCOL NAEMA PANEL PHLIO PLEUR POLYO SPARA MACRO

[End of Annex and of document]

* Classes 203 and 204 are not solely established on the basis of closely related species.