UPOV
International Union for the Protection of New Varieties of Plants

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**Technical Committee** **TC/55/5**

**Fifty-Fifth Session** **Original:** English
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# UPOV INFORMATION DATABASES

*Document prepared by the Office of the Union*

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## EXECUTIVE SUMMARY

1. The purpose of this document is to present matters for consideration by the Technical Committee (TC) on the UPOV Code system; UPOV Codes and the PLUTO database.

2. Matters for information concerning the GENIE database, UPOV Codes and the PLUTO database are presented in document TC/55/INF/2 "UPOV information databases – matters for information".

3. The TC is invited to:

(a) consider the proposed amendments to the "Guide to the UPOV Code System" to reflect the creation of exceptions for the UPOV Codes for popcorn, sweet corn and *Brassica oleracea*, as set out in Annex I to this document;

(b) note that the proposals of the TC, at its fifty-fifth session, concerning the amendment to the "Guide to the UPOV Code System" will be reported to the CAJ at its seventy-seventh session, to be held in Geneva on October 28, 2020, and if agreed by the CAJ, a revised "Guide to the UPOV Code System" would be presented for adoption by the Council at its fifty-fourth ordinary session, to be held in October 30, 2020;

(c) consider the proposals to amend the following UPOV Codes, in conjunction with the comments by the TWPs, at their sessions in 2019:

(i) CITRU_LIT, as set out in paragraph 18 of this document;

(ii) ECSED and ECSED_EMO, as set out in paragraph 21 of this document;

(iii) CRTNT and CRTNT_CAL, as set out in paragraph 25 of this document;

(iv) ISOPL, DGISO, ISOPL_CAN and DGISO_PCA, as set out in paragraph 29 of this document;

(v) LOBIV and LOBIV_SIL, as set out in paragraph 33 of this document;

(vi) ASCOC, ASNEO, NEOFI and NEOFI_FAL, as set out in paragraph 37 of this document;

(vii) HAWOR_FAS, HAWOR_LIM, HAWOR_LFA and HAWOR_MAR, as set out in paragraph 41 of this document;

(viii) MAHON, MAHON_ACA, MAHON_AQU, MAHON_BEA, MAHON_JAP, MAHON_LOM, MAHON_PUM and MAHON_REP, as set out in paragraph 45 of this document;

(ix) HOMLC and HOMLC_PLA, as set out in paragraph 50 of this document;

(x) WASAB and WASAB_JAP, as set out in paragraph 54 of this document;

(xi) NEOTY_LOL, as set out in paragraph 58 of this document;

(xii) SENEC_BIC, SENEC_CIN, SENEC_CHE, SENEC_CON, SENEC_CRU, SENEC_FIC, SENEC_HER, SENEC_JAC, SENEC_LAX and SENEC_TAL, as set out in paragraph 62 of this document;

(d) note that, subject to the conclusions by the TC, at its fifty-fifth session, on the proposed amendments to the UPOV Codes, at the fifty-fifth session of the TC, members of the Union and contributors of data to the PLUTO database will be informed of the changes and the date of the changes by means of a circular in advance of the UPOV code amendments, as set out in paragraph 64 of this document;

(e) note that contributors to the PLUTO database will be requested to use the amended UPOV codes when submitting their plant variety data to the Office of the Union, as set out in paragraph 64 of this document;

(f) consider the proposed revision of Section 3.1.3 of the "Program for improvements to the PLUTO database" to reflect the change of the acceptable character set to ISO/IEC Standard 8859 1: 1998, as set out in paragraph 67 of this document; and

(g) note that the CAJ at its seventy-sixth session, to be held in Geneva on October 30, 2019, will consider the proposed revision of the Section 3.1.3 of the "Program for improvements to the PLUTO database", in conjunction with the comments by the TC, at its fifty-fifth session.

4. The following abbreviations are used in this document:

| | |
|---|---|
| CAJ: | Administrative and Legal Committee |
| GRIN : | Germplasm Resources Information Network |
| TWA: | Technical Working Party for Agricultural Crops |
| TWF: | Technical Working Party for Fruit Crops |
| TWO: | Technical Working Party for Ornamental Plants and Forest Trees |
| TWP(s): | Technical Working Party(ies) |
| TWV: | Technical Working Party for Vegetables |
| WG-DEN: | Working Group on Variety Denominations |

5. The structure of this document is as follows:



## AMENDMENTS TO THE "GUIDE TO THE UPOV CODE SYSTEM"

6. The background to this matter is provided in document TC/54/6 "UPOV information databases", paragraphs 20 to 23 and paragraphs 35 to 50.

7. The "Guide to the UPOV Code System" is available on the UPOV website (see http://www.upov.int/genie/resources/pdfs/upov_code_system_en.pdf).

8. The TC, at its fifty-fourth session, held in Geneva, from October 29 and 30, 2018, noted the request of the Technical Working Party for Agricultural Crops (TWA), at its forty-seventh session, held in Naivasha, Kenya, from May 21 to 25, 2018, and agreed not to delete the UPOV Codes for sweet corn and popcorn, therefore creating an exception to the "Guide to the UPOV Code System". It agreed that this exception should be presented in an amendment to the "Guide to the UPOV Code System" (see document TC/54/31 "Report", paragraph 297).

9. The TC, at its fifty-fourth session, noted the opinion provided by the Technical Working Party for Vegetables (TWV), at its fifty-second session, held in Beijing, China, from September 17 to 21, 2018, and agreed not to delete the UPOV Codes for *Brassica oleracea*, therefore creating an exception to the "Guide to the UPOV Code System". It agreed that this exception should be presented in an amendment to the "Guide to the UPOV Code System" (see document TC/54/31 "Report", paragraph 301).

Proposal

10. It is proposed to amend the "Guide to the UPOV Code System" to reflect the creation of exceptions for the UPOV Codes for popcorn, sweet corn and *Brassica oleracea*, as provided in Annex I to this document.

11. Subject to agreement by the TC at its fifty-fifth session, to be held in Geneva on October 28 and 29, 2019, the proposed amendments to the "Guide to the UPOV Code System" will be presented for consideration by the CAJ at its seventy-seventh session, to be held in Geneva on October 28, 2020. Subject to agreement by the CAJ at its seventy-seventh session, a revised "Guide to the UPOV Code System" would be presented for adoption by the Council, at its fifty-fourth ordinary session, to be held in Geneva on October 30, 2020.

*12. The TC is invited to:*

*(a) consider the proposed amendments to the "Guide to the UPOV Code System" to reflect the creation of exceptions for the UPOV Codes for popcorn, sweet corn and* Brassica oleracea*, as set out in Annex I to this document; and*

*(b) note that the proposals of the TC, at its fifty-fifth session, concerning the amendment to the "Guide to the UPOV Code System" will be reported to the CAJ at its seventy-seventh session, to be held in Geneva on October 28, 2020, and if agreed by the CAJ, a revised "Guide to the UPOV Code System" would be presented for adoption by the Council at its fifty-fourth ordinary session, to be held in October 30, 2020.*

UPOV CODE AMENDMENTS

Proposals for UPOV code amendments

13. Section 3.3 of the "Guide to the UPOV Code System" provides the following:

> "(d) […] Amendments to UPOV codes will be handled by the same procedure as the introduction of new UPOV codes […]. However, in addition, all members of the Union and contributors of data to the Plant Variety Database will be informed of any amendments".

14. The Technical Working Party for Ornamental Plants and Forest Trees (TWO), at its fifty-first session, held in Christchurch, New Zealand, from February 18 to 22, 2019, the TWV, at its fifty-third session, held in Seoul, Republic of Korea, from May 20 to 24, 2019, and the Technical Working Party for Fruit Crops (TWF), at its fiftieth session, held in Budapest, Hungary, from June 24 to 28, 2019, considered proposals for UPOV code amendments, as set out in documents TWP/3/4 "UPOV information databases", paragraphs 58 to 76, and TWP/3/4 Add. "Addendum to UPOV information databases", paragraphs 4 to 6.

15. The TWA, at its forty-eighth session, to be held in Montevideo, Uruguay, from September 16 to 20, 2019, will consider a proposal for UPOV code amendment, as set out in document TWP/3/4 Add. "Addendum to UPOV information databases", paragraphs 8 to 10. The recommendations of the TWA, at its forty-eighth session, will be reported to the TC in an addendum to this document.

*UPOV code for Citrus limettioides*

Background

16. The Office of the Union was informed of a duplication of UPOV codes for *Citrus limettioides*.

17. The current entries in the GENIE database for *Citrus limettioides*, the taxa in GRIN and the numbers of entries in the PLUTO database, are as follows:

| UPOV code | Principal botanical name in GENIE | Botanical name(s) in GRIN | Common name(s) in GENIE | Numbers of entries in PLUTO |
|---|---|---|---|---|
| CITRU_LMT | *Citrus limettioides* Tanaka | *Citrus limettioides* Tanaka | Indian sweet lime, Palestine sweet lemon, Palestine sweet lime, sweet lime | 0 |
| CITRU_LIT | *Citrus limettioides* Tanaka | *Citrus limettioides* Tanaka | Indian sweet lime; Palestine sweet lemon | 0 |

Proposal

18. It is proposed to delete the UPOV Code CITRU_LIT.

*UPOV code for inter-generic hybrids between Echeveria and Sedum*

Background

19. The Office of the Union was informed of the duplication of UPOV codes for inter-generic hybrids between *Echeveria* and *Sedum*.

20. The current entries in the GENIE database for inter-generic hybrids between *Echeveria* and *Sedum*, the taxa in GRIN and the numbers of entries in the PLUTO database, are as follows:

| UPOV code | Principal botanical name in GENIE | Botanical name(s) in GRIN | Common name(s) in GENIE | Numbers of Entries in PLUTO |
|---|---|---|---|---|
| ECSED | *Echeveria* DC. x *Sedum* L. | ×*Sedeveria* E. Walther (with a comment "= Sedum × Echeveria") | n.a. | 0 |
| ECSED_EMO | *Echeveria elegans* Rose. *x Sedum morganianum* E. Walther | n.a. | n.a. | 0 |
| SEDEV | ×*Sedeveria* spp. | ×*Sedeveria* E. Walther (with a comment "= Sedum × Echeveria") | n.a. | 3 |

Proposal

21. It is proposed to delete the UPOV Codes ECSED and ECSED_EMO. Echeveria elegans Rose. × Sedum morganianum E. Walther would be covered by the new UPOV Code SEDEV_EMO, which the Office of the Union would create. The principal botanical name of the UPOV Code SEDEV would include the wording "(*Echeveria* DC. × and *Sedum* L.)" after "×*Sedeveria* E. Walther". *Echeveria lilacina* Kimnach & R. C. Moran x *Sedum suaveolens* Kimnach would be covered by the new UPOV Code SEDEV_LSU, which the Office of the Union would create, as follows:

| Current | | | Proposal | | |
|---|---|---|---|---|---|
| UPOV code | Principal botanical name | Other botanical name(s) | UPOV code | Principal botanical name | Other botanical name(s) |
| ECSED | *Echeveria* DC. × *Sedum* L. | n.a. | [to delete] | n.a. | n.a. |
| ECSED_EMO | *Echeveria elegans* Rose. × *Sedum morganianum* E. Walther | n.a. | SEDEV _EMO | *Echeveria elegans* Rose. × *Sedum morganianum* E. Walther | n.a. |
| SEDEV | ×*Sedeveria spp.* | *Echeveria lilacina* Kimnach & R. C. Moran × *Sedum suaveolens* Kimnach; Sedeveria | SEDEV | ×*Sedeveria* E. Walther (*Echeveria* DC. × *Sedum* L.) | n.a. |
| n.a. | n.a. | n.a. | SEDEV_LSU | *Echeveria lilacina* Kimnach & R. C. Moran × *Sedum suaveolens* Kimnach | n.a. |

Discussion at the fifty-first session of the TWO

22. The TWO, at its fifty-first session, agreed with the proposal to amend the UPOV Codes ECSED and ECSED_EMO, as set out in paragraph 21 of this document (see document TWO/51/12 "Report", paragraph 100).

*UPOV codes for Platostoma and Platostoma calcaratum*

Background

23. The Office of the Union was informed of the duplication of UPOV codes for *Platostoma* and *Platostoma calcaratum*.

24. The current entries in the GENIE database for *Platostoma* and *Platostoma calcaratum*, the taxa in GRIN and the numbers of entries in the PLUTO database, are as follows:

| UPOV code | Principal botanical name in GENIE | Botanical name(s) in GRIN | Common name(s) in GENIE | Numbers of Entries in PLUTO |
|---|---|---|---|---|
| PLATO | *Platostoma* P. Beauv. | *Platostoma* P. Beauv. | n.a. | 0 |
| CRTNT | *Ceratanthus* | *Platostoma* P. Beauv. (synonym: *Ceratanthus* F. Muell. ex G. Taylor) | n.a. | 0 |
| PLATO_CAL | *Platostoma calcaratum* (Hemsl.) A. J. Paton | *Platostoma calcaratum* (Hemsl.) A. J. Paton | n.a. | 0 |
| CRTNT_CAL | *Ceratanthus calcaratus* (Hemsl.) G. Taylor | *Platostoma calcaratum* (Hemsl.) A. J. Paton (synonym: *Ceratanthus calcaratus* (Hemsl.) G. Taylor) | n.a. | 1 |

Proposal

25. It is proposed to delete the UPOV Codes CRTNT and CRTNT_CAL. *Ceratanthus* F. Muell. ex G. Taylor would be covered by the UPOV Code PLATO and *Ceratanthus calcaratus* (Hemsl.) G. Taylor would be covered by the UPOV Code PLATO_CAL, as follows:

| Current | | | Proposal | | |
|---|---|---|---|---|---|
| UPOV code | Principal botanical name | Other botanical name(s) | UPOV code | Principal botanical name | Other botanical name(s) |
| CRTNT | *Ceratanthus* | n.a. | [to delete] | n.a. | n.a. |
| PLATO | *Platostoma* P. Beauv. | *Ceratanthus* | PLATO | *Platostoma* P. Beauv. | *Ceratanthus* F. Muell. ex G. Taylor |
| CRTNT_CAL | *Ceratanthus calcaratus* (Hemsl.) G. Taylor | n.a. | [to delete] | n.a. | n.a. |
| PLATO_CAL | *Platostoma calcaratum* (Hemsl.) A. J. Paton | Ceratanthus calcaratus (Hemsl.) G. Taylor | PLATO_CAL | *Platostoma calcaratum* (Hemsl.) A. J. Paton | *Ceratanthus calcaratus* (Hemsl.) G. Taylor |

Discussion at the fifty-first session of the TWO

26. The TWO, at its fifty-first session, agreed with the proposal to amend the UPOV Codes CRTNT and CRTNT_CAL, as set out in paragraph 25 of this document (see document TWO/51/12 "Report", paragraph 101).

*UPOV codes for Digitalis, Isoplexis and hybrids between Digitalis and Isoplexis*

Background

27. The Office of the Union was informed of the duplication of UPOV codes for *Digitalis*, *Isoplexis* and hybrids between *Digitalis* and *Isoplexis*.

28. The current entries in the GENIE database for *Digitalis*, *Isoplexis* and hybrids between *Digitalis* and *Isoplexis* and their species, the taxa in GRIN and the numbers of entries in the PLUTO database, are as follows:

| UPOV code | Principal botanical name in GENIE | Botanical name(s) in GRIN | Common name(s) in GENIE | Numbers of Entries in PLUTO |
|---|---|---|---|---|
| DGTLS | *Digitalis* L. | *Digitalis* L. | Foxglove | 26 |
| ISOPL | *Isoplexis* (Lindl.) Loudon | *Digitalis* L. (synonym: *Isoplexis* (Lindl.) Loudon) | n.a. | 0 |
| DGISO | *Digitalis* L. × *Isoplexis* (Lindl.) Loudon | n.a. | n.a. | 0 |
| ISOPL_CAN | *Isoplexis canariensis* (L.) Lindl. | *Digitalis canariensis* L. (synonym: *Isoplexis canariensis* (L.) Lindl.) | n.a. | 0 |
| DGTLS_VAL | *Digitalis* ×*valinii* J. D. Arm. | *Digitalis* ×*valinii* J. D. Arm. | n.a. | 10 |
| DGISO_PCA | *Digitalis purpurea* L. × *Isoplexis canariensis (L.) Lindl.* | n.a. | n.a. | 0 |

Proposal

29. It is proposed to delete the UPOV Codes ISOPL, DGISO, ISOPL_CAN and DGISO_PCA. *Isoplexis* would be covered by the UPOV Code DGTLS as a synonym of *Digitalis* and *Isoplexis canariensis* would be covered by the new UPOV Code DGTLS_CAN, which the Office of the Union would create. *Digitalis purpurea* × *Isoplexis canariensis* would be covered by the UPOV Code DGTLS_VAL, as follows:

| Current | | | Proposal | | |
|---|---|---|---|---|---|
| UPOV code | Principal botanical name | Other botanical name(s) | UPOV code | Principal botanical name | Other botanical name(s) |
| DGTLS | *Digitalis* L. | *Digiplexis* ined.; *Isoplexis* (Lindl.) Loudon | DGTLS | *Digitalis* L. | ×*Digiplexis* ined.; *Isoplexis* (Lindl.) Loudon ; *Digitalis* L. × *Isoplexis* (Lindl.) Loudon |
| ISOPL | *Isoplexis* (Lindl.) Loudon | n.a. | | | |
| DGISO | *Digitalis* L. × *Isoplexis* (Lindl.) Loudon | n.a. | | | |
| ISOPL_CAN | *Isoplexis canariensis* (L.) Lindl. | n.a. | DGTLS _CAN | *Digitalis canariensis* L. | *Isoplexis canariensis* (L.) Lindl |
| DGTLS_VAL | *Digitalis* ×*valinii* J. D. Arm. | *Digitalis canariensis* × *Digitalis purpurea* | DGTLS_VAL | *Digitalis* ×*valinii* J. D. Arm. | *Digitalis canariensis* × *Digitalis purpurea*; *Digitalis purpurea* L. × *Isoplexis canariensis* (L.) Lindl. |
| DGISO_PCA | *Digitalis purpurea* L. × *Isoplexis canariensis (L.) Lindl.* | n.a. | | | |

Discussion at the fifty-first session of the TWO

30. The TWO, at its fifty-first session, agreed with the proposal to amend the UPOV Codes ISOPL, DGISO, ISOPL_CAN and DGISO_PCA, as set out in paragraph 29 of this document (see document TWO/51/12 “Report”, paragraph 102).

*UPOV codes for Lobivia and Echinopsis chamaecereus*

Background

31. The Office of the Union was informed of the reclassification of *Lobivia* to *Echinopsis*, and a misallocation of the UPOV code for *Echinopsis chamaecereus*.

32. The current entries in the GENIE database for *Lobivia* genus and *Echinopsis chamaecereus*, the taxa in GRIN and the numbers of entries in the PLUTO database, are as follows:

| UPOV code | Principal botanical name in GENIE | Botanical name(s) in GRIN | Common name(s) in GENIE | Numbers of Entries in PLUTO |
|---|---|---|---|---|
| ECHIN | *Echinopsis* Zucc. | *Echinopsis* Zucc. | n.a. | 3 |
| LOBIV | *Lobivia* | *Lobivia* Britton & Rose | n.a. | 3 |
| LOBIV_SIL | *Echinopsis chamaecereus* H. Friedrich & Glaetzle | *Echinopsis chamaecereus* H. Friedrich & Glaetzle (synonym: *Lobivia silvestrii* (Speg.) G. D. Rowley) | Peanut Cactus | 20 |

Proposal

33. In accordance with the reclassification of *Lobivia* to *Echinopsis*, it is proposed to delete the UPOV Codes LOBIV and LOBIV_SIL. The *Lobivia* genus would be covered by the UPOV Code ECHIN and *Echinopsis chamaecereus* would be covered by a new UPOV Code ECHIN_CHA, which the Office of the Union would create, as follows:

| Current | | | Proposal | | |
|---|---|---|---|---|---|
| UPOV code | Principal botanical name | Other botanical name(s) | UPOV code | Principal botanical name | Other botanical name(s) |
| ECHIN | *Echinopsis* Zucc. | *Acanthocalycium* Backeb.; *Acantholobivia* Backeb.; *Acanthopetalus* Y. Itô; etc. | ECHIN | *Echinopsis* Zucc. | *Lobivia* Britton & Rose; *Acanthocalycium* Backeb.; *Acantholobivia* Backeb.; *Acanthopetalus* Y. Itô etc. |
| LOBIV | *Lobivia* | n.a. | | | |
| LOBIV_SIL | *Echinopsis chamaecereus* H. Friedrich & Glaetzle | *Chamaecereus silvestrii* (speg.) Britton et Rose; *Lobivia silvestrii* (speg.) G.D. Rowley | ECHIN_CHA | *Echinopsis chamaecereus* H. Friedrich & Glaetzle | *Cereus silvestrii* Speg.; *Chamaecereus silvestrii* (Speg.) Britton & Rose; *Lobivia silvestrii* (Speg.) G. D. Rowley |

Discussion at the fifty-first session of the TWO

34. The TWO, at its fifty-first session, agreed with the proposal to amend the UPOV Codes LOBIV and LOBIV_SIL, as set out in paragraph 33 of this document (see document TWO/51/12 “Report”, paragraph 103).

*UPOV codes for Ascocentrum and Neofinetia, hybrids between Ascocentrum and Neofinetia and Neofinetia falcata*

Background

35. The Office of the Union was informed of the reclassification of *Ascocentrum* and *Neofinetia* to *Vanda*.

36. The current entries in the GENIE database for *Ascocentrum* and *Neofinetia* genera, their hybrids and *Neofinetia falcata*, the taxa in GRIN and the numbers of entries in the PLUTO database, are as follows:

| UPOV code | Principal botanical name in GENIE | Botanical name(s) in GRIN | Common name(s) in GENIE | Numbers of Entries in PLUTO |
|---|---|---|---|---|
| VANDA | *Vanda* Jones | *Vanda* Jones ex R. Br. | Vanda | 211 |
| ASCOC | *Ascocentrum* Schltr. ex J. J. Sm. | *Vanda* Jones ex R. Br. (synonym: *Ascocentrum* Schltr. ex J. J. Sm.) | n.a. | 0 |
| ASNEO | *Ascocentrum x Neofinetia* | n.a. | n.a. | 0 |
| NEOFI | *Neofinetia* Hu | *Vanda* Jones ex R. Br. *(synonym: Neofinetia Hu)* | | 2 |
| NEOFI_FAL | *Neofinetia falcata* (Thunb.) Hu | *Vanda falcata* (Thunb.) Beer (synonym: *Neofinetia falcata* (Thunb.) Hu) | n.a. | 4 |

Proposal

37. In accordance with the reclassification of *Ascocentrum* and *Neofinetia* to *Vanda*, it is proposed to delete the UPOV codes ASCOC, ASNEO, NEOFI and NEOFI_FAL. The *Ascocentrum* and *Neofinetia* genera would be covered as synonyms of *Vanda* genus under the UPOV Code VANDA. *Neofinetia falcata* would be covered as a synonym of *Vanda falcata* under a new UPOV code VANDA_FAL, which the Office of the Union would create, as follows:

| Current | | | Proposal | | |
|---|---|---|---|---|---|
| UPOV code | Principal botanical name | Other botanical name(s) | UPOV code | Principal botanical name | Other botanical name(s) |
| VANDA | *Vanda* Jones | n.a. | VANDA | *Vanda Jones* ex R. Br. | *Ascocentrum* Schltr. ex J. J. Sm.; *Neofinetia* Hu; *Ascocentrum x Neofinetia; Ascofinetia;* |
| ASCOC | *Ascocentrum* Schltr. ex J. J. Sm. | n.a. | | | |
| NEOFI | *Neofinetia* Hu | n.a. | | | |

| Current | | | Proposal | | |
|---|---|---|---|---|---|
| UPOV code | Principal botanical name | Other botanical name(s) | UPOV code | Principal botanical name | Other botanical name(s) |
| ASNEO | *Ascocentrum x Neofinetia* | *Ascofinetia* | | | *Ascocentropsis* Senghas & Schildh.; *Christensonia* Haager; *Eparmatostigma* Garay; *Euanthe* Schltr.; *Gunnaria* S. C. Chen ex Z. J. Liu & L. J. Chen; *Seidenfadenia* Garay; *Trudelia* Garay |
| NEOFI_FAL | *Neofinetia falcata* (Thunb.) Hu | n.a. | VANDA_FAL | *Vanda falcata* (Thunb.) Beer | *Neofinetia falcata* (Thunb.) Hu; *Orchis falcata* Thunb. |

Discussion at the fifty-first session of the TWO

38. The TWO, at its fifty-first session, agreed with the proposal to amend the UPOV Codes ASCOC, ASNEO, NEOFI and NEOFI_FAL, as set out in paragraph 37 of this document (see document TWO/51/12 “Report”, paragraph 104).

*UPOV codes for Haworthia species*

Background

39. The Office of the Union was informed of the reclassification of certain *Haworthia* species *to Haworthiopsis* species.

40. The current entries in the GENIE database for certain *Haworthia species*, the taxa in GRIN and the numbers of entries in the PLUTO database, are as follows:

| UPOV code | Principal botanical name in GENIE | Botanical name(s) in GRIN | Common name(s) in GENIE | Numbers of Entries in PLUTO |
|---|---|---|---|---|
| HAWOR_FAS | *Haworthia fasciata* (Willd.) Haw. | *Haworthiopsis fasciata* (Willd.) G. D. Rowley (synonym: *Haworthia fasciata* (Willd.) Haw.) | zebra haworthia | 15 |
| HAWOR_LFA | *Haworthia limifolia x Haworthia fasciata* | n.a. | n.a. | 1 |
| HAWOR_LIM | *Haworthia limifolia* Marloth | *Haworthiopsis limifolia* (Marloth) G. D. Rowley (synonym: *Haworthia limifolia* Marloth) | n.a. | 3 |
| HAWOR_MAR | *Haworthia margaritifera* (L.) Haw. | Synonym of *Haworthia maxima* (Haw.) Duval | n.a. | 1 |

Proposal

41. In accordance with the reclassification of certain *Haworthia* species to *Haworthiopsis* species, it is proposed to delete the UPOV codes HAWOR_FAS, HAWOR_LIM, HAWOR_LFA and HAWOR_MAR. *Haworthia fasciata* would be covered as synonym of *Haworthiopsis fasciata* under a new UPOV code HAWOT_FAS. *Haworthia limifolia* would be covered as synonym of *Haworthiopsis limifolia* under a new UPOV code HAWOT_LIM. *Haworthia limifolia* × *Haworthia fasciata* would be covered as synonym of hybrids between *Haworthiopsis limifolia* and *Haworthia fasciata* under a new UPOV code HAWOT_LFA. Those new codes above would be created by the Office of the Union. *Haworthia margaritifera* would be covered as synonym of *Haworthia maxima* under the UPOV code HAWOR_MAX, as follows:

| Current | | | Proposal | | |
|---|---|---|---|---|---|
| UPOV code | Principal botanical name | Other botanical name(s) | UPOV code | Principal botanical name | Other botanical name(s) |
| HAWOR_FAS | *Haworthia fasciata* (Willd.) Haw. | n.a. | HAWOT_FAS | *Haworthiopsis fasciata* (Willd.) G. D. Rowley | *Apicra fasciata* Willd.; *Haworthia fasciata* (Willd.) Haw.; *Haworthia fasciata f. major (*Salm-Dyck) Poelln.*; Haworthia fasciata f. ovato-lanceolata* Poelln.; *Haworthia fasciata f. sparsa* Poelln.; *Haworthia fasciata f. subconfluens* (Poelln.) Poelln.; *Haworthia fasciata f. vanstaedensis* Poelln.; *Haworthia fasciata f. variabilis* Poelln.; *Haworthia fasciata var. subconfluens* Poelln. |
| HAWOR_LFA | *Haworthia limifolia* × *Haworthia fasciata* | n.a. | HAWOT_LFA | hybrids between *Haworthiopsis limifolia* (Marloth) G. D. Rowley *and Haworthiopsis fasciata* (Willd.) Haw. | *Haworthia limifolia* × *Haworthia fasciata* |
| HAWOR_LIM | *Haworthia limifolia* Marloth | n.a. | HAWOT_LIM | *Haworthiopsis limifolia* (Marloth) G. D. Rowley | *Haworthia limifolia* Marloth |
| HAWOR_MAX | *Haworthia maxima (*Haw.) Duval | n.a. | HAWOR_MAX | *Haworthia maxima* (Haw.) Duval | *Haworthia margaritifera (L.) Haw.; Aloe pumila var. margaritifera* L.*; Aloe semimargaritifera* Salm-Dyck; *Haworthia margaritifera var. semimargaritifera* (Salm-Dyck) Baker; *Haworthia papillosa var. semipapillosa* Haw.; *Haworthia semiglabrata* Haw. |
| HAWOR_MAR | *Haworthia margaritifera* (L.) Haw. | n.a. | | | |

Discussion at the fifty-first session of the TWO

42. The TWO, at its fifty-first session, agreed with the proposal to amend the UPOV Codes HAWOR_FAS, HAWOR_LIM, HAWOR_LFA and HAWOR_MAR, as set out in paragraph 41 of this document (see document TWO/51/12 “Report”, paragraph 105).

*UPOV codes for Mahonia and its species*

Background

43. The Office of the Union was informed of reclassification of *Mahonia* to *Berberis.*

44. The current entries in the GENIE database for *Mahonia* and its species, the taxa in GRIN and the numbers of entries in the PLUTO database, are as follows:

| UPOV code | Principal botanical name in GENIE | Botanical name(s) in GRIN | Common name(s) in GENIE | Numbers of Entries in PLUTO |
|---|---|---|---|---|
| BERBE | *Berberis* L. | *Berberis* L. | Barberry | 49 |
| MAHON | *Mahonia* Nutt. | *Berberis* L. | Mahonia | 13 |
| MAHON_ACA | *Mahonia acanthifolia* G. Don | *Berberis napaulensis* (DC.) Spreng. (synonym: *Mahonia acanthifolia* G. Don) | Mahonia | 0 |
| MAHON_AQU | *Mahonia aquifolium* (Pursh) Nutt. | *Berberis aquifolium Pursh* (synonym: *Mahonia aquifolium* (Pursh) Nutt.) | Oregon Grape | 6 |
| MAHON_BEA | *Mahonia bealei* (Fortune) Carrière | *Berberis bealei* Fortune (synonym: *Mahonia bealei* (Fortune) Carrière) | Mahonia | 0 |
| MAHON_JAP | *Mahonia japonica* (Thunb.) DC. | *Berberis japonica* (Thunb.) Spreng. (synonym: *Mahonia japonica* (Thunb.) DC.) | Mahonia | 0 |
| MAHON_LOM | *Mahonia lomariifolia* Takeda | *Berberis oiwakensis* (Hayata) Laferr. (synonym: *Mahonia lomariifolia* Takeda) | Mahonia | 0 |
| MAHON_PUM | *Mahonia pumila* (Greene) Fedde | *Berberis pumila* Greene (synonym: *Mahonia pumila* (Greene) Fedde) | Mahonia | 0 |
| MAHON_REP | *Mahonia repens* (Lindl.) G. Don | *Berberis repens* Lindl. (synonym: *Mahonia repens* (Lindl.) G. Don) | Mahonia | 3 |

Proposal

45. In accordance with the reclassification of *Mahonia* to *Berberis*, it is proposed to amend the UPOV codes MAHON, MAHON_ACA, MAHON_AQU, MAHON_BEA, MAHON_JAP, MAHON_LOM, MAHON_PUM and MAHON_REP. *Mahonia* would be covered as synonym of *Berberis* under UPOV code BERBE. *Mahonia acanthifolia* would be covered as a synonym of *Berberis napaulensis* under a new UPOV code BERBE_NAP. *Mahonia aquifolium* would be covered as a synonym of *Berberis aquifolium* under a new UPOV code BERBE_AQU. *Mahonia bealei* would be covered as a synonym of *Berberis bealei* under a new UPOV code BERBE_BEA. *Mahonia japonica* would be covered as a synonym of *Berberis japonica* under a new UPOV code BERBE_JAP. *Mahonia lomariifolia* would be covered as a synonym of *Berberis oiwakensis* under a new UPOV code BERBE_OIW. *Mahonia pumila* would be covered as a synonym of *Berberis pumila* under a new UPOV code BERBE_PUM. *Mahonia repens* would be covered as a synonym of *Berberis repens* under a new UPOV code BERBE_REP. Above new codes would be created by the Office of the Union, as follows:

| Current | | | Proposal | | |
|---|---|---|---|---|---|
| UPOV code | Principal botanical name | Other botanical name(s) | UPOV code | Principal botanical name | Other botanical name(s) |
| BERBE | *Berberis* L. | n.a. | BERBE | *Berberis* L. | *Mahonia* Nutt.; *Odostemon* Raf. |
| MAHON | *Mahonia* Nutt. | n.a. | | | |
| MAHON_ACA | *Mahonia acanthifolia* G. Don | n.a. | BERBE _NAP | *Berberis napaulensis* (DC.) Spreng. | *Mahonia acanthifolia* G. Don |
| MAHON_AQU | *Mahonia aquifolium* (Pursh) Nutt. | n.a. | BERBE _AQU | *Berberis aquifolium* Pursh | *Mahonia aquifolium* (Pursh) Nutt.; *Berberis diversifolia* (Sweet) Steud.; *Mahonia aquifolium subsp. aquifolium* (Pursh) Nutt.; *Mahonia diversifolia* Sweet |
| MAHON_BEA | *Mahonia bealei* (Fortune) Carrière | *Mahonia bealei* (Fort.) Carr | BERBE _BEA | *Berberis bealei* Fortune | *Mahonia bealei* (Fortune) Carrière; *Berberis japonica var. bealei* (Fortune) Skeels; |
| MAHON_JAP | *Mahonia japonica* (Thunb.) DC. | n.a. | BERBE _JAP | *Berberis japonica* (Thunb.) Spreng. | *Mahonia japonica* (Thunb.) DC.; *Ilex japonica* Thunb. |
| MAHON_LOM | *Mahonia lomariifolia* Takeda | n.a. | BERBE _OIW | *Berberis oiwakensis* (Hayata) Laferr. | *Mahonia lomariifolia* Takeda; *Berberis lomariifolia* (Takeda) Laferr.; *Mahonia oiwakensis* Hayata |
| MAHON_PUM | *Mahonia pumila* (Greene) Fedde | n.a. | BERBE _PUM | *Berberis pumila* Greene | *Mahonia pumila* (Greene) Fedde |
| MAHON_REP | *Mahonia repens* (Lindl.) G. Don | n.a. | BERBE _REP | *Berberis repens* Lindl. | *Mahonia repens* (Lindl.) G. Don; *Berberis sonnei* (Abrams) McMinn; *Mahonia repens var. repens* (Lindl.) G. Don; *Mahonia repens var. rotundifolia* (May) Fedde ; *Mahonia sonnei* Abrams |

Discussion at the fifty-first session of the TWO

46. The TWO, at its fifty-first session, agreed with the proposal to amend the UPOV Codes MAHON, MAHON_ACA, MAHON_AQU, MAHON_BEA, MAHON_JAP, MAHON_LOM, MAHON_PUM and MAHON_REP, as set out in paragraph 45 of this document (see document TWO/51/12 “Report”, paragraphs 106 and 107).

47. The TWO noted the reclassification of the genus *Mahonia* to *Berberis* and agreed that this information should be reported to the subgroup discussing the draft Test Guidelines for *Berberis*.

*UPOV codes for Homalocladium and its species*

Background

48. The Office of the Union was informed of reclassification of *Homalocladium* to *Muehlenbeckia.*

49. The current entries in the GENIE database for *Homalocladium* and its species, the taxa in GRIN and the numbers of entries in the PLUTO database, are as follows:

| UPOV code | Principal botanical name in GENIE | Botanical name(s) in GRIN | Common name(s) in GENIE | Numbers of Entries in PLUTO |
|---|---|---|---|---|
| MUEHL | *Muehlenbeckia* Meisn. | *Muehlenbeckia* Meisn. | wireplant | 5 |
| HOMLC | *Homalocladium* (F. v. Muell.) L.H. Bailey | *Muehlenbeckia* Meisn. *(synonym: Homalocladium* (F. Muell.) L. H. Bailey*)* | | 0 |
| HOMLC_PLA | *Homalocladium platycladum* (F. Muell.) L. H. Bailey | *Muehlenbeckia platyclada* (F. Muell.) Meisn. *(synonym: Homalocladium platycladum* (F. Muell.) L. H. Bailey*)* | Centipede-plant; Ribbonbush; Tapewormplant | 1 |

Proposal

50. In accordance with the reclassification of *Homalocladium* to *Muehlenbeckia*, it is proposed to amend the UPOV codes HOMLC and HOMLC_PLA. *Homalocladium* would be covered as a synonym of *Muehlenbeckia* under UPOV code MUEHL. *Homalocladium platycladum* would be covered as a synonym of *Muehlenbeckia platyclada* under a new UPOV code MUEHL_PLA which the Office of the Union would create, as follows:

| Current | | | Proposal | | |
|---|---|---|---|---|---|
| UPOV code | Principal botanical name | Other botanical name(s) | UPOV code | Principal botanical name | Other botanical name(s) |
| MUEHL | *Muehlenbeckia* Meisn. | n.a. | MUEHL | *Muehlenbeckia* Meisn. | *Homalocladium* (F. Muell.) L. H. Bailey |
| HOMLC | *Homalocladium* (F. v. Muell.) L.H. Bailey | n.a. | | | |
| HOMLC_PLA | *Homalocladium platycladum* (F. Muell.) L. H. Bailey | n.a. | MUEHL_PLA | *Muehlenbeckia platyclada* (F. Muell.) Meisn. | *Homalocladium platycladum* (F. Muell.) L. H. Bailey; *Polygonum platycladum* F. Muell. |

Discussion at the fifty-first session of the TWO

51. The TWO, at its fifty-first session, agreed with the proposal to amend the UPOV Codes HOMLC and HOMLC_PLA, as set out in paragraph 50 of this document (see document TWO/51/12 “Report”, paragraph 108).

*UPOV codes for Wasabia genus and its species*

Background

52. The Office of the Union was informed of the reclassification of *Wasabia* to *Eutrema.*

53. The current entries in the GENIE database for *Wasabia* genus and its species, the taxa in GRIN and the numbers of entries in the PLUTO database, are as follows:

| UPOV code | Principal botanical name in GENIE | Botanical name(s) in GRIN | Common name(s) in GENIE | Numbers of Entries in PLUTO |
|---|---|---|---|---|
| WASAB | *Wasabia* | *Eutrema* R. Br. (synonym: *Wasabia* Matsum.) | n.a. | 0 |
| WASAB_JAP | *Eutrema japonicum* (Miq.) Koidz. | *Eutrema japonicum* (Miq.) Koidz. (synonym: *Wasabia japonica (Miq.) Matsum.)* | Japanese-horseradish | 21 |

Proposal

54. In accordance with the reclassification of *Wasabia* to *Eutrema*, it is proposed to delete the UPOV codes WASAB and WASAB_JAP. *Wasabia* would be covered as a synonym of *Eutrema* under a new UPOV code EUTRE, which the Office of the Union would create. *Wasabia japonica* would be covered as a synonym of *Eutrema japonicum* under a new UPOV code EUTRE_JAP, which the Office of the Union would create, as follows:

| Current | | | Proposal | | |
|---|---|---|---|---|---|
| UPOV code | Principal botanical name | Other botanical name(s) | UPOV code | Principal botanical name | Other botanical name(s) |
| WASAB | *Wasabia* | n.a. | EUTRE | *Eutrema* R. Br. | *Esquiroliella* H. Lév.; *Glaribraya* H. Hara; *Martinella* H. Lév.; *Neomartinella* Pilg.; |

| Current | | | Proposal | | |
|---|---|---|---|---|---|
| UPOV code | Principal botanical name | Other botanical name(s) | UPOV code | Principal botanical name | Other botanical name(s) |
| | | | | | *Platycraspedum* O. E. Schulz; *Taphrospermum* C. A. Mey.; *Thellungiella* O. E. Schulz; *Wasabia* Matsum. |
| WASAB_JAP | *Eutrema japonicum* (Miq.) Koidz. | *Cochlearia wasabi* Siebold, nom. nud.; *Eutrema koreanum* auct. nonn.; *Eutrema wasabi* Maxim.; *Lunaria japonica* Miq.; *Wasabia japonica* (Miq.) Matsum.; *Wasabia pungens* Matsum.; *Wasabia wasabi* (Maxim.) Makino | EUTRE_JAP | *Eutrema japonicum* (Miq.) Koidz. | *Cochlearia wasabi* Siebold, nom. nud.; *Eutrema koreanum* auct. nonn.; *Eutrema wasabi* Maxim.; *Lunaria japonica* Miq.; *Wasabia japonica* (Miq.) Matsum.; *Wasabia pungens* Matsum.; *Wasabia wasabi* (Maxim.) Makino |

Discussion at the fifty-third session of the TWV

55. The TWV, at its fifty-third session, agreed with the amendments proposed for the UPOV codes WASAB and WASAB_JAP, as set out in paragraph 54 of this document (see document TWV/53/14 “Report”, paragraph 106).

*UPOV code for Neotyphodium lolii*

Background

56. The Office of the Union was informed of the reclassification of *Neotyphodium lolii* to *Epichloe festucae.*

57. The current entries in the GENIE database for *Neotyphodium lolii*, the taxa in Index Fungorum and the number of entries in the PLUTO database, are as follows:

| UPOV code | Principal scientific name in GENIE | Scientific names in Index Fungorum | Common name(s) in GENIE | Numbers of Entries in PLUTO |
|---|---|---|---|---|
| NEOTY_LOL | *Neotyphodium lolii* | *Epichloe festucae* Leuchtm., Schardl & M.R. Siegel (synonym: *Neotyphodium lolii* (Latch, M.J. Chr. & Samuels) Glenn, C.W. Bacon & Hanlin) | n.a. | 5 |

Proposal

58. In accordance with the reclassification of *Neotyphodium lolii to Epichloe festucae*, it is proposed to delete the UPOV code NEOTY_LOL. *Neotyphodium lolii* would be covered as a synonym of *Epichloe festucae* under UPOV code EPICH_FES, as follows:

| Current | | | Proposal | | |
|---|---|---|---|---|---|
| UPOV code | Principal scientific name | Other scientific name(s) | UPOV code | Principal scientific name | Other scientific name(s) |
| NEOTY_LOL | *Neotyphodium lolii* | n.a. | EPICH_FES | *Epichloe festucae* Leuchtm., Schardl & M.R. Siegel | *Acremonium lolii* Latch, M.J. Chr. & Samuels; *Epichloe festucae var. lolii* (Latch, M.J. Chr. & Samuels) C.W. Bacon & Schardl; *Neotyphodium lolii* (Latch, M.J. Chr. & Samuels) Glenn, C.W. Bacon & Hanlin |

Discussion at the forty-eighth session of the TWA

59. The TWA, at its forty-eighth session, to be held in Montevideo, Uruguay, from September 16 to 20, 2019, will consider this proposal and the recommendation of the TWA, at its forty-eighth session, will be reported in an addendum to this document.

*UPOV codes for Senecio species*

Background

60. The Office of the Union was informed of the reclassification of certain *Senecio* species *to Brachyglottis, Curio, Jacobaea, Pericallis and Tephroseris* species.

61. The current entries in the GENIE database for certain *Senecio* species, the taxa in GRIN and the numbers of entries in the PLUTO database, are as follows:

| UPOV code | Principal botanical name in GENIE | Botanical name(s) in GRIN | Common name(s) in GENIE | Numbers of Entries in PLUTO |
|---|---|---|---|---|
| SENEC_BIC | *Senecio bicolor* (Willd.) Tod., non Vis. | *Jacobaea maritima* (L.) Pelser & Meijden (synonym: *Senecio bicolor* (Willd.) Tod.; *Senecio cineraria* DC.) | n.a. | 1 |
| SENEC_CIN | *Senecio cineraria* DC. | | n.a. | 0 |
| SENEC_CHE | *Senecio cruentus* × *S. heritierii DC.* | *Pericallis cruenta* (Masson ex L'Hér.) Bolle × *Pericallis lanata* (L'Hér.) B. Nord. (synonym: *Senecio cruentus* × *S. heritieri DC.*) | n.a. | 32 |
| SENEC_CON | *Senecio congestus* (R. Br.) DC. | *Tephroseris palustris* (L.) Rchb. (synonym: *Senecio congestus* (R. Br.) DC.) | n.a. | 0 |
| SENEC_CRU | *Senecio cruentus* (Masson ex L'Hér.) DC. | *Pericallis cruenta* (Masson ex L'Hér.) Bolle (synonym: *Senecio cruentus* (Masson ex L'Hér.) DC.) | cineraria | 156 |
| SENEC_FIC | *Senecio ficoides* (L.) Sch. Bip. | *Curio ficoides* (L.) P. V. Heath (synonym: *Senecio ficoides* (L.) Sch. Bip.) | n.a. | 2 |
| SENEC_HER | *Senecio heritieri* DC. | *Pericallis lanata* (L'Hér.) B. Nord. (synonym: *Senecio heritieri* DC.) | n.a. | 0 |
| SENEC_JAC | *Senecio jacobaea* L. | *Jacobaea vulgaris* Gaertn. (synonym: *Senecio jacobaea* L.) | n.a. | 0 |
| SENEC_LAX | *Senecio laxifolius* Buchanan | *Brachyglottis laxifolia* (Buchanan) B. Nord. (synonym: *Senecio laxifolius* Buchanan) | n.a. | 0 |
| SENEC_TAL | *Curio talinoides* (DC.) P. V. Heath | *Curio talinoides* (DC.) P. V. Heath | n.a. | 1 |

Proposal

62. In accordance with the reclassification of certain *Senecio* species *to Brachyglottis, Curio, Jacobaea, Pericallis and Tephroseris* species, it is proposed to consider the deletion of the UPOV codes SENEC_BIC, SENEC_CIN, SENEC_CHE, SENEC_CON, SENEC_CRU, SENEC_FIC, SENEC_HER, SENEC_JAC, SENEC_LAX and SENEC_TAL. *Senecio bicolor* and *Senecio cineraria* would be covered as synonym of *Jacobaea maritima* under a new UPOV code JACOB_MAR. Hybrids between *Senecio cruentus* and *S. heritieri* would be covered as synonym of hybrids between *Pericallis cruenta* and *P. lanata* under a new UPOV code PERIC_CLA. *Senecio congestus* would be covered as synonym of *Tephroseris palustris* under a new UPOV code TEPHO_PAL. *Senecio cruentus* would be covered as synonym of *Pericallis cruenta* under a new UPOV code PERIC_CRU. *Senecio ficoides* would be covered as synonym of *Curio ficoides* under a new UPOV code CURIO_FIC. *Senecio heritieri* would be covered as synonym of *Pericallis lanata* under a new UPOV code PERIC_LAN. *Senecio jacobaea* would be covered as synonym of *Jacobaea vulgaris* under a new UPOV code JACOB_VUL. *Senecio laxifolius* would be covered as synonym of *Brachyglottis laxifolia* under a new UPOV code BRCHG_LAX. *Senecio talinoides* would be covered as synonym of *Curio talinoides* under a new UPOV code CURIO_TAL. Those new codes above would be created by the Office of the Union, as follows:

| Current | | | Proposal | | |
|---|---|---|---|---|---|
| UPOV code | Principal botanical name | Other botanical name(s) | UPOV code | Principal botanical name | Other botanical name(s) |
| SENEC_BIC | *Senecio bicolor* (Willd.) Tod., non Vis. | *Cineraria bicolor* Willd.; *Senecio cineraria* DC. subsp. *bicolor* (Willd.) Arcang. | JACOB_MAR | *Jacobaea maritima* (L.) Pelser & Meijden | *Senecio bicolor* (Willd.) Tod.; *Senecio cineraria* DC.; *Cineraria bicolor* Willd.; *Othonna maritima* L.; *Senecio bicolor* subsp. *cineraria* (DC.) Chater; *Senecio cineraria* subsp. *bicolor* (Willd.) Arcang. |
| SENEC_CIN | *Senecio cineraria* DC. | n.a. | | | |
| SENEC_CHE | *Senecio cruentus* × *S. heritierii DC.* | n.a. | PERIC_CLA | Hybrids between *Pericallis cruenta* and *P. lanata* | Hybrids between *Senecio cruentus* and *S. heritieri* |

| Current | | | Proposal | | |
|---|---|---|---|---|---|
| UPOV code | Principal botanical name | Other botanical name(s) | UPOV code | Principal botanical name | Other botanical name(s) |
| SENEC_CON | *Senecio congestus* (R. Br.) DC. | n.a. | TEPHO_PAL | *Tephroseris palustris* (L.) Rchb. | *Senecio congestus* (R. Br.) DC.; *Cineraria congesta* R. Br.; Othonna palustris L.; *Senecio palustris* (L.) Hook.; *Senecio tubicaulis* Mansf. |
| SENEC_CRU | *Senecio cruentus* (Masson ex L'Hér.) DC. | *Cineraria cruenta* Masson ex L'Hér.; *Pericallis cruenta* (Masson ex L'Hér.) Bolle | PERIC_CRU | *Pericallis cruenta* (Masson ex L'Hér.) Bolle | *Senecio cruentus* (Masson ex L'Hér.) DC. ; *Cineraria cruenta* Masson ex L'Hér. |
| SENEC_FIC | *Senecio ficoides* (L.) Sch. Bip. | *Curio ficoides* (L.) P. V. Heath | CURIO_FIC | *Curio ficoides* (L.) P. V. Heath | *Senecio ficoides* (L.) Sch. Bip.; *Cacalia ficoides* L.; *Kleinia ficoides* (L.) Haw. |
| SENEC_HER | *Senecio heritieri* DC. | n.a. | PERIC_LAN | *Pericallis lanata* (L'Hér.) B. Nord. | *Senecio heritieri* DC. ; *Cineraria lanata* L'Hér. |
| SENEC_JAC | *Senecio jacobaea* L. | n.a. | JACOB_VUL | *Jacobaea vulgaris* Gaertn. | *Senecio jacobaea* L. |
| SENEC_LAX | *Senecio laxifolius* Buchanan | *Brachyglottis laxifolia* (Buchanan) B. Nord. | BRCHG_LAX | *Brachyglottis laxifolia* (Buchanan) B. Nord. | *Senecio laxifolius* Buchanan |
| SENEC_TAL | *Curio talinoides* (DC.) P. V. Heath | *Senecio talinoides* Andes | CURIO_TAL | *Curio talinoides* (DC.) P. V. Heath | *Senecio talinoides* Andes |

*63. The TC is invited to consider the following proposals to amend the following UPOV Codes:*

*(a) CITRU_LIT, as set out in paragraph 18 of this document;*

*(b) ECSED and ECSED_EMO, as set out in paragraph 21 of this document;*

*(c) CRTNT and CRTNT_CAL, as set out in paragraph 25 of this document;*

*(d) ISOPL, DGISO, ISOPL_CAN and DGISO_PCA, as set out in paragraph 29 of this document;*

*(e) LOBIV and LOBIV_SIL, as set out in paragraph 33 of this document;*

*(f) ASCOC, ASNEO, NEOFI and NEOFI_FAL, as set out in paragraph 37 of this document;*

*(g) HAWOR_FAS, HAWOR_LIM, HAWOR_LFA and HAWOR_MAR, as set out in paragraph 41 of this document;*

*(h) MAHON, MAHON_ACA, MAHON_AQU, MAHON_BEA, MAHON_JAP, MAHON_LOM, MAHON_PUM and MAHON_REP, as set out in paragraph 45 of this document;*

*(i) HOMLC and HOMLC_PLA, as set out in paragraph 50 of this document;*

*(j) WASAB and WASAB_JAP, as set out in paragraph 54 of this document;*

*(k) NEOTY_LOL, as set out in paragraph 58 of this document;*

*(l) SENEC_BIC, SENEC_CIN, SENEC_CHE, SENEC_CON, SENEC_CRU, SENEC_FIC, SENEC_HER, SENEC_JAC, SENEC_LAX and SENEC_TAL, as set out in paragraph 62 of this document.*

Implementation of UPOV code amendments

64. Subject to the conclusions at the fifty-fifth session of the TC on the proposed amendments to the UPOV Codes, members of the Union and contributors of data to the PLUTO database will be informed of the changes and the date of the changes by means of a circular in advance of the UPOV code amendments. Contributors of data to the PLUTO database will be requested to use the amended UPOV codes when submitting their plant variety data to the Office of the Union.

*65. The TC is invited to note that:*

*(a) subject to the conclusions by the TC, at its fifty-fifth session, on the proposed amendments to the UPOV Codes, at the fifty-fifth session of the TC, members of the Union and contributors of data to the PLUTO database will be informed of the changes and the date of the changes by means of a circular in advance of the UPOV code amendments, as set out in paragraph 64 of this document; and*

*(b) contributors to the PLUTO database will be requested to use the amended UPOV codes when submitting their plant variety data to the Office of the Union, as set out in paragraph 64 of this document.*

PLUTO DATABASE

Program for improvements to the PLUTO database

66. The Working Group on Variety Denominations (WG-DEN), at its fifth meeting, held in Geneva on October 30, 2018, agreed (see document UPOV/WG-DEN/5/3 “Report”, paragraph 30):

(a) to accept accents and special characters in denominations in the PLUTO database while noting that the denomination search tool on the PLUTO database would only use the character set ASCII representation, as defined in ISO Standard 646;

(b) to revise the “Program for Improvements to the Plant Variety Database”, Section 3.1.3 in order to change the acceptable character set to ISO/IEC Standard 8859 1: 1998.

67. The TC, at its fifty-fifth session, will be invited to consider the following proposed revision of the Section 3.1.3 of the “Program for improvements to the PLUTO database” to reflect the change of the acceptable character set to ISO/IEC Standard 8859 1: 1998:

> “3.1.3 Subject to Section 3.1.4, the character set for data shall be the Extended ASCII [American Standard Code for Information Interchange] representation, as defined in ISO [International Standards Organization]/IEC [International Electrotechnical Commission] Standard 8859 1: 1998~~ 646. Special characters, symbols or accents (˜, ˆ, ¨, º, etc.) are not accepted. Only characters of the English alphabet may be used~~.”

68. The CAJ at its seventy-sixth session, to be held in Geneva on October 30, 2019, will consider the proposed revision of the Section 3.1.3 of the “Program for improvements to the PLUTO database”, in conjunction with the comments by the TC at its fifty-fifth session.

69. The “Program for improvements to the PLUTO database” with the proposed amendment is presented in Annex II to this document.

*70. The TC is invited to:*

*(a) consider the proposed revision of the Section 3.1.3 of the "Program for improvements to the PLUTO database" to reflect the change of the acceptable character set to ISO/IEC Standard 8859 1: 1998, as set out in paragraph 67 of this document; and*

*(b) note that the CAJ at its seventy-sixth session, to be held in Geneva on October 30, 2019, will consider the proposed revision of the Section 3.1.3 of the "Program for improvements to the PLUTO database", in conjunction with the comments by the TC at its fifty-fifth session.*

[Annexes follow]

ANNEX I

# PROPOSED REVISION TO THE "GUIDE TO THE UPOV CODE SYSTEM"

Note for Draft revision

**~~Strikethrough~~ (highlighted in grey)** indicates deletion from the text of the "Guide to the UPOV Code System".

**Underlining (highlighted in grey)** indicates insertion to from the text of the "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~~PLUTO ~~P~~plant ~~V~~variety ~~D~~database (https://www.upov.int/pluto/en/) 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~~[session]/INF/6), cooperation in examination (see document C/~~40~~[session]/INF/5), experience in DUS testing (see document TC/~~43~~ [session]/INF/4), and existence of UPOV Test Guidelines (see document TC/~~43~~[session]/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~~UPOV code structure

2.1.1 In general, the following UPOV code ~~construction~~structure 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 Principal ~~b~~Botanical ~~n~~Name (see Section 2.2 "Principal 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~~may be 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 Principal Botanical Name

### *2.2.1 Reference*

2.2.1.1 In general, UPOV codes are created on the basis of botanical or scientific name recognized by the following references (Principal Botanical Name):

(i) for plant species: the Germplasm Resources Information Network (GRIN) database[1];
(ii) for fungi species: the Index Fungorum database[2]; [i]
(iii) for algae species: the AlgaeBase database[3]; [i]

### *2.2.2 Exceptions*

2.2.2.1 UPOV has agreed on the following exceptions to the approach set out in Sections 2.1 and 2.2.1:

(a) 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 |
| 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** |

[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

[2] The Royal Botanic Gardens Kew represented by the Mycology Section, Landcare Research-NZ, represented by the Mycology Group, and the Institute of Microbiology, Chinese Academy of Science. URL: http://www.indexfungorum.org/names/names.asp

[3] Guiry, M.D. & Guiry, G.M. 2019. *AlgaeBase*. World-wide electronic publication, National University of Ireland, Galway. URL: http://www.algaebase.org/

(b) *Zea mays*

| *UPOV code* | *Botanical name* | *Common name* |
|---|---|---|
| ZEAAA_MAY_SAC | *Zea mays* L. *saccharata* Koern. | sweet corn |
| ZEAAA_MAY_EVE | *Zea mays* L. var. *everta* (Praecox) Sturt. | Popcorn |
| ZEAAA_MAY_MIC | *Zea mays* L. convar. *microsperma* Koern. | |

2.~~2~~3 Inter-generic and inter-specific hybrids

2.~~2~~3.1 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~~3.2 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. ×*Triticosecale* [= *Triticum* x *Secale*]), the "genus element" of the UPOV code is based on the binomial name. For example, ×*Triticosecale* has the UPOV code "TRITL".

2.~~2~~3.3 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~~3.4 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~~3.5 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~~3.6 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* |

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, t~~The Office will create a UPOV code on the basis of the ~~Germplasm Resources Information Network (GRIN) database~~[1]Principal Botanical Name, as set out in Section 2.2 of this document.

~~(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~~b) 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~~PLUTO ~~D~~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.

(~~d~~c) 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[ii]) contain UPOV variety denomination classes; for genera and species not covered by the List of Classes in Annex I to document UPOV/INF/12[ii], the general rule ("one genus / one class") is that a genus is considered to be a class (see document UPOV/INF/12 [ii], 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~~PLUTO ~~D~~database will be informed of any amendments.

(~~e~~d) 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~~e) 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~~f) 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~~[session]/INF/4), have provided interested experts in the drafting of relevant Test Guidelines and/or have protected varieties (based on ~~Plant Variety~~PLUTO ~~D~~database); 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 available on 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 as contained in the GENIE database, are published on the UPOV website (see http://www.upov.int/genie/en/updates/). That information is published in a form that facilitates electronic downloading of the UPOV codes.

[Annex II follows]

ANNEX II

"PROGRAM FOR IMPROVEMENTS TO THE PLUTO DATABASE"
WITH PROPOSED AMENDMENTS

Note for Draft revision

**~~Strikethrough~~ (highlighted in grey)** indicates deletion from the text of the "Program for improvements to the PLUTO database".

**Underlining (highlighted in grey)** indicates insertion to from the text of the "Program for improvements to the PLUTO database".

*1. Title of the Plant Variety Database*

The name of the Plant Variety Database is the "PLUTO database" (PLUTO = **PL**ant varieties in the **U**POV system: **T**he **O**mnibus).

*2. Provision of assistance to contributors*

2.1 The PLUTO database administrator[4] will continue to contact all members of the Union and contributors to the PLUTO database that do not provide data for the PLUTO 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 PLUTO database.

2.2 In response to the needs identified by members of the Union and contributors to the PLUTO database in 2.1, the PLUTO database administrator will seek to develop solutions for each of the PLUTO 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 PLUTO database "General Notice and Disclaimer" states that "[…] All contributors to the PLUTO database 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. In cases where the PLUTO database administrator is requested by the contributor to allocate UPOV codes, or where it is considered to be appropriate to amend a UPOV code allocated by the contributor, the PLUTO database administrator will make proposals for approval by the contributor. In the absence of responses within the designated time, the proposed UPOV codes will be used in the PLUTO database. Where the contributor subsequently notifies the PLUTO database administrator of a need for correction, the correction will be made at the first opportunity, in accordance with Section 4 "Frequency of data updating"

[4] 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."

*3. Data to be included in the PLUTO database*

*3.1 Data format*

3.1.1 In particular, the following data format options to be developed for contributing data to the PLUTO 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 Extended ASCII [American Standard Code for Information Interchange] representation, as defined in ISO [International Standards Organization]/IEC [International Electrotechnical Commission] Standard 8859 1: 1998 ~~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 PLUTO 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>;<br>(ii) to review whether to continue type of record "BIL";<br>(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 | REQUIRED if <520> is provided | |
| <520> | Species--common name in national language other than English in non-Roman alphabet | | not mandatory | |

| TAG | Description of Item | Current Status | Proposed status | Database developments required |
|---|---|---|---|---|
| **<511>** | **Species--UPOV Taxon Code** | mandatory | **mandatory** | (i) if requested, the PLUTO database administrator to provide assistance to the contributor for allocating UPOV codes;<br>(ii) data quality check: to check UPOV codes against the list of UPOV codes;<br>(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**<br>(ii) date not mandatory<br>(iii) REQUIRED if <550>, <551>, <552> or <553> are provided | (i) to clarify meaning and rename;<br>(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<br>(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;<br>(ii) to allow for more than one approved denomination for a variety (i.e. where a denomination is approved but then replaced)<br>(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<br>(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 | |
| <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<br>(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 |

| TAG | Description of Item | Current Status | Proposed status | Database developments required |
|---|---|---|---|---|
| <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**<br>(ii) date not mandatory | (i) data quality check: mandatory condition in relation to other items;<br>(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;<br>(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:<br>(ii) data quality check: date cannot be earlier than <610><br>(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>)<br>(ii) to be accompanied by start and end date (title holder can change) |
| <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 | |

| TAG | Description of Item | Current Status | Proposed status | Database developments required |
|---|---|---|---|---|
| <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 PLUTO 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 PLUTO database if the required item is absent in Roman alphabet.

*3.4 Dates of commercialization*

3.4.1 An item has been created in the PLUTO 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 |

| | Comment |
|---|---|
| (iii) Date on which the variety was commercialized* for the first time in the territory<br>(*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><br>(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*

Contributors will be encouraged to provide data as soon as practical after it is published by the authority(ies) concerned. The PLUTO database will be updated with new data as quickly as possible after receipt, in accordance with the uploading procedure. The PLUTO database can, as necessary, be updated with corrected data, in accordance with the uploading procedure.

*5. Disclaimer*

5.1 The following disclaimer appears on the PLUTO page of the UPOV website:

"The data currently in the Plant Variety Database (PLUTO database) was last updated on [dd/mm/yyyy] .

"To continue to the PLUTO page, you must first acknowledge the following disclaimer.

"Please note that the information concerning plant breeders' rights provided in the PLUTO database does not constitute the official publication of the authorities concerned. To consult the official publication, or to obtain details on the status and completeness of the information in the PLUTO database, please contact the relevant authority, contact details for which are provided at http://www.upov.int/members/en/pvp_offices.html.

"All contributors to the PLUTO database are responsible for the correctness and completeness of the data they supply. Users are particularly requested to note that it is not obligatory for members of the Union to supply data for the PLUTO database and, for those members of the Union who supply data, it is not obligatory to supply data for all items."

5.2 The following disclaimer appears with reports generated by the PLUTO database:

"The data in this report was generated from the PLUTO database on [dd/mm/yyyy].

"Please note that the information concerning plant breeders' rights provided in the PLUTO database does not constitute the official publication of the authorities concerned. To consult the official publication, or to obtain details on the status and completeness of the information in the PLUTO database, please contact the relevant authority, contact details for which are provided at http://www.upov.int/members/en/pvp_offices.html.

"All contributors to the PLUTO database are responsible for the correctness and completeness of the data they supply. Users are particularly requested to note that it is not obligatory for members of the Union to supply data for the PLUTO database and, for those members of the Union who supply data, it is not obligatory to supply data for all items."

*6. 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.

[Endnotes follow]

ENDNOTES

[i] Reference recommended by GRIN.

[ii] To be updated when document UPOV/INF/12 changes to the Explanatory Notes.

[End of endnotes and of document]