|  |  |
| --- | --- |
|  | E |
| International Union for the Protection of New Varieties of Plants |  |

|  |  |
| --- | --- |
| Technical CommitteeFifty-Eighth SessionGeneva, October 24 and 25, 2022 | TC/58/10.Original: EnglishDate: October 12, 2022 |

UPOV information databases

Document prepared by the Office of the Union

Disclaimer: this document does not represent UPOV policies or guidance

Executive summary

 The purpose of this document is to report on developments concerning the GENIE database and to present proposals to amend UPOV codes.

 This document is presented in two sections. The first section, “Proposals for amending the UPOV code system and UPOV codes”, presents matters which may require a decision to be taken by the TC. The second section, “Matters for information”, is provided for the information of the TC but does not require decisions at this stage.

 The TC is invited to consider:

 (a) a proposal to revise document UPOV/INF/23 “UPOV Code System” to clarify the maximum number of characters to be used in the appended element to UPOV codes, as set out in paragraphs 10 and 11 of this document;

 (b) inviting the TWA and TWV, at their sessions in 2023, to consider the proposal to create variety groups tor UPOV codes for *Beta vulgaris* L. ssp. *vulgaris*, as set out in paragraph 18 of this document, respectively;

 (c) inviting the TWV, at its session in 2023, to consider the proposal to create variety groups for UPOV codes for *Brassica oleracea*, as set out in paragraph 19 of this document;

 (d) inviting the TWA and TWV, at their sessions in 2023, to consider whether to create variety groups for the UPOV code ZEAAA\_MAY\_MAY, as set out in paragraph 21;

 (e) the proposal to delete the UPOV codes HYLOC, HYLOC\_COS, HYLOC\_GUA, HYLOC\_GUN, HYLOC\_POL and HYLOC\_UND, as set out in paragraph 27 of this document; and

 (f) the proposal to delete the UPOV codes CALAT\_CRO, CALAT\_LOE, CALAT\_LRO, CALAT\_ROS and CALAT\_WAR, as set out in paragraph 30 of this document.

 The TC is invited to note:

 (a) that 131 new UPOV codes were created in 2021 and a total of 9,342 UPOV codes are included in the GENIE database;

 (b) that the TWV, at its fifty-sixth session, agreed that variety groups should be used to replace complex infra‑specific botanical names, such as for *Beta vulgaris, Brassica oleracea* and *Cichorium intybus;*

(c) the invitation for the Netherlands to further develop the proposal to create variety groups for *Beta vulgaris, Brassica oleracea* and *Cichorium intybus* to be presented at the fifty-seventh session of the TWV;

 (d) the invitation by the TWV for the Office of the Union to develop proposals for revising the UPOV codes with appended information according to the approach to use variety groups for complex botanical names;

 (e) that the UPOV code CITRU\_AUM will be amended to append information to create groups “1MA” for mandarins and “2OR” for oranges, as set out in paragraph 41; and

 (f) that, on the basis of the conclusions at the TC, at its fifty-seventh session, the UPOV codes BRASS\_OLE\_GA, BRASS\_OLE\_GB, CITRU\_AUR, CITRU\_CLE, CITRU\_MRE, CITRU\_CRE, CITRU\_INT, CITRU\_AUR, CITRU\_DAV, CITRU\_EXC, CITRU\_KER, CITRU\_BAL, CITRU\_KAR, CITRU\_BEN, ZEAAA\_MAY\_SAC, ZEAAA\_MAY\_EVE and ZEAAA\_MAY\_MIC will be deleted, as set out in paragraphs 40, 42 and 43, on January 1, 2023, and the members of the Union and contributors of data to the PLUTO database will be informed of the changes by means of a Circular in advance.

 Matters concerning developments on the PLUTO plant variety database (PLUTO database) are presented in document TC/57/INF/3 “PLUTO Plant Variety Database”.

 The structure of this document is as follows:

Executive summary 1

Proposals for amending the UPOV code system and UPOV codes UPOV Code System 3

Proposals for the revision of document UPOV/INF/23 “Guide to the UPOV code system” 3

Proposals for amending UPOV codes 4

Replacing complex botanical nomenclature by variety groups 4

Proposed amendments considered by the TWF and TWO in 2022 6

Matters for information 8

GENIE database 8

Background 8

UPOV code developments 9

TWP checking 9

Proposals for amending UPOV codes 9

Replacing complex botanical nomenclature by variety groups 9

UPOV codes for *Beta vulgaris* 1

UPOV codes for *Brassica oleracea* 1

UPOV codes for *Citrus* 1

UPOV codes ZEAAA\_MAY\_SAC, ZEAAA\_MAY\_EVE and ZEAAA\_MAY\_MIC 2

ANNEX AMENDMENTS TO THE UPOV CODES FOR *BETA VULGARIS*, *BRASSICA OLERACEA, CITRUS* AND *ZEA MAYS* AS AGREED AT THE TECHNICAL COMMITTEE, AT ITS FIFTY-SEVENTH SESSION

 The following abbreviations are used in this document:

CAJ: Administrative and Legal Committee

GRIN: Germplasm Resources Information Network

 TC: Technical Committee

 TWA: Technical Working Party for Agricultural Crops

 TWC: Technical Working Party on Automation and Computer Programs

 TWF: Technical Working Party for Fruit Crops

 TWM: Technical Working Party for Testing Methods and Techniques

 TWO: Technical Working Party for Ornamental Plants and Forest Trees

 TWP(s): Technical Working Party(ies)

 TWV: Technical Working Party for Vegetables

## Proposals for amending the UPOV code system and UPOV codes UPOV Code System

 The guide to the UPOV code system (document UPOV/INF/23 “UPOV Code System”) was adopted by the Council on September 21, 2021, and is available on the UPOV website at <https://www.upov.int/genie/resources/pdfs/upov_code_system_en.pdf> (see document C/55/12 “Outcome of consideration of documents by correspondence”, paragraph 32).

### Proposals for the revision of document UPOV/INF/23 “Guide to the UPOV code system”

#### Maximum number of characters in the appended element to UPOV codes

 The TC, at its fifty-seventh session[[1]](#footnote-2), considered a proposal to clarify the maximum number of characters to be used in the appended element to UPOV codes, as set out in document UPOV/INF/23 “UPOV Code System”, and agreed to request the Office of the Union to develop a proposal for consideration by the TWPs and the TC, at their sessions in 2022 (see document TC/57/25 “Report”, paragraph 35).

 At their sessions in 2022, the TWV[[2]](#footnote-3), TWA[[3]](#footnote-4), TWO[[4]](#footnote-5), TWF[[5]](#footnote-6) and TWM[[6]](#footnote-7) considered a proposal developed by the Office of the Union and agreed to revise document UPOV/INF/23 “Guide to the UPOV Code System” as follows (see documents TWV/56/22 “Report”, paragraph 7; TWA/51/11 “Report”, paragraph 23; TWO/54/6 “Report”, paragraph 22; TWF/53/14 “Report”, paragraph 7; and TWM/1/26 “Report”, paragraph 7) (deletions indicated with highlighting and ~~strikethrough~~; additions indicated with highlighting and underline):

“5 UPOV CODE: APPENDED INFORMATION

“5.1 Appended element construction

“5.1.1. Where required, an element may be appended to a UPOV code to provide information on the variety group, variety type and/or denomination class.

“The appended element to UPOV codes is identifiable though the following naming convention:

* “A digit (number from 1 to 9) prefix identifies the new appended element.
* “Different digits or letters could, if appropriate, indicate different categories of information.
* “The appended element should contain a maximum of six digits or letters in total (e.g. ‘1AC2TG’)

“This element may be appended to any UPOV code, regardless of plant taxa (genera, species or subspecies levels). Examples:

“UPOV code for genus *Abies*: ABIES

“UPOV code with appended element: ABIES\_~~1234~~ 1AC2TG

“UPOV code for species *Abies sibirica*: ABIES\_SIB

“UPOV code with appended element: ABIES\_SIB\_~~1234~~ 1AC2TG

“UPOV code for sub-species *Abies sibirica* subsp. *semenovii*: ABIES\_SIB\_SEM

“UPOV code with appended element: ABIES\_SIB\_SEM\_~~1234~~ 1AC2TG”

#### Correction of cross-references to document UPOV/EXN/DEN

 Cross-references to document UPOV/INF/12 “Explanatory Notes to Variety Denominations under the UPOV Convention” should be corrected and replaced by UPOV/EXN/DEN in paragraphs 4.2 and 4.3 of document UPOV/INF/23, as follows:

“4.2 Inter-generic and inter-specific hybrids

4.2.6 In the case of UPOV codes for hybrid genera and species, the UPOV code will not distinguish between two hybrids produced using the same parents. A UPOV code is created for the first hybrid notified to UPOV in accordance with the procedure set out in paragraphs ~~2.2.3 to 2.2.5~~ 4.2.3 to 4.2.5. 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.”

 “4.3 Introduction of New UPOV Codes / Amendments to UPOV Codes

“(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~~ UPOV/EXN/DEN) contain UPOV variety denomination classes; for genera and species not covered by the List of Classes in Annex I to document ~~UPOV/INF/12~~ UPOV/EXN/DEN, the general rule (“one genus / one class”) is that a genus is considered to be a class (see document ~~UPOV/INF/12~~ UPOV/EXN/DEN, Section ~~2.5.2~~ 4.5.2 and its Annex I). […]”

## Proposals for amending UPOV codes

### Replacing complex botanical nomenclature by variety groups

#### Background

 The TC, at its fifty-seventh session[[7]](#footnote-8), agreed to amend the UPOV codes for *Beta vulgaris*, *Brassica oleracea*, *Citrus* and *Zea mays*, as reproduced in the Annex to this document (see document TC/57/25 “Report”, paragraphs 69 to 80).

 The TWV, at its fifty-sixth session[[8]](#footnote-9), received presentations on “Use of Variety Groups in the UPOV system for *Brassica oleracea* and other vegetable crops” and “UPOV codes for *Cichorium intybus*” from an expert from the Netherlands. A copy of the presentations is provided in documents TWV/56/13 and TWV/56/15, respectively (see document TWV56/22 “Report”, paragraphs 26 to 30).

 The TWV, at its fifty-sixth session, agreed that variety groups should be used to replace complex infra‑specific botanical names, such as for *B. vulgaris*, *B. oleracea* and *C. intybus*. The TWV agreed to invite the Netherlands to further develop the proposal to create variety groups for *B. vulgaris, B. oleracea* and *C. intybus*, to be presented at the fifty-seventh session of the TWV.

 The TWV, at its fifty-sixth session, agreed to invite the Office of the Union to develop proposals for revising the UPOV codes with appended information according to the approach to use variety groups for complex botanical names, to be presented at the fifty-seventh session of the TWV.

 The TWV, at its fifty-sixth session, recalled that, at its fifty-fourth session, it had noted that approximately 1,200 varieties with UPOV code CICHO\_INT in the PLUTO database could not be allocated with certainty to any variety group. The TWV agreed to invite contributors to the PLUTO database to further precise whether the varieties belonged to the groups “forage-”, “industrial-”, “leaf-” or “witloof-chicory”.

#### Proposal

 Following the proposal by the TWV to replace complex infra‑specific botanical names by variety groups, the TC may wish to consider revising its decision, at the fifty-seventh session, to append information to the UPOV codes for *Beta vulgaris*, *Brassica oleracea* and *Citrus* and *Zea mays.*

##### UPOV codes for Beta vulgaris

 It is proposed that the TC consider inviting the TWA and TWV, at their sessions in 2023, to consider the following proposal to create variety groups to the UPOV codes for *Beta vulgaris* L. ssp*. vulgaris*, and consider whether to delete the UPOV code BETAA\_VUL\_GV to avoid the situation where a variety cannot be allocated with certainty to any variety group.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Denomination class | Botanical names | Current UPOV code | UPOV Codes with appended information | Proposed UPOV code with group information |
| Class 2.1 | *Beta vulgaris* L. subsp. *vulgaris* (Fodder beet Group) (synonym to *Beta vulgaris* L. subsp. *vulgaris* var. *alba* DC.) | BETAA\_VUL\_GVA | BETAA\_VUL\_VUL \_21**FB** | BETAA\_VUL\_G**VA** |
| *Beta vulgaris* L. subsp. *vulgaris* (Sugar beet Group) (synonym to *Beta vulgaris* L. subsp. *vulgaris* var. *saccharifera* Alef.) | BETAA\_VUL\_GVS | BETAA\_VUL\_VUL\_21**SB** | BETAA\_VUL\_G**VS** |
| Class 2.2 | *Beta vulgaris* L. subsp. *vulgaris* (Beetroot Group) (synonym to *Beta vulgaris* L. subsp. *vulgaris* var. *conditiva* Alef.) | BETAA\_VUL\_GVC | BETAA\_VUL\_VUL\_22**BR** | BETAA\_VUL\_G**VC** |
| *Beta vulgaris* L. subsp. *vulgaris* (Leaf beet Group) (synonym to *Beta vulgaris* L. subsp. *vulgaris* var. *flavescens* DC. f. crispa) | BETAA\_VUL\_GVF | BETAA\_VUL\_VUL\_22**LB** | BETAA\_VUL\_G**VF** |
| Class 2.3 | Beta other than classes 2.1 and 2.2. | BETAA; BETAA\_VUL; BETAA\_VUL\_GV |   | BETAA; BETAA\_VUL;  |

##### UPOV codes for Brassica oleracea

 It is proposed that the TC consider inviting the TWV, at its session in 2023, to consider the following proposal to create variety groups for the UPOV code *Brassica oleracea* var. *capitata* L..

|  |  |  |  |
| --- | --- | --- | --- |
| Botanical names | Current UPOV code | UPOV Codes with appended information | Proposed UPOV code with group information |
| *Brassica oleracea* L. var. *capitata* L. (White Cabbage Groups) (synonym to *Brassica oleracea* L. f. *alba* DC.) | BRASS\_OLE\_GCA | BRASS\_OLE\_GC\_1W  | BRASS\_OLE\_GC**A** |
| *Brassica oleracea* L. var. *capitata* L. (Red Cabbage Group)(synonym to *Brassica oleracea* L. var. *rubra* L.) | BRASS\_OLE\_GCR | BRASS\_OLE\_GC\_2R  | BRASS\_OLE\_GC**R** |

##### UPOV codes for Zea mays

 The TC, at its fifty-seventh session, agreed to append information to the UPOV code ZEAAA\_MAY\_MAY to establish variety groupsas follows:

|  |  |  |  |
| --- | --- | --- | --- |
| Principal botanical name | Other botanical name(s) | Variety groups | UPOV code with appended information |
| *Zea mays* L. subsp. *mays* | Zea mays var ceratina L.; Zea mays var. indentata (Sturtev.) L. H. Bailey; Zea mays var. indurata (Sturtev.) L. H. Bailey;Zea mays var. saccharata (Sturtev.) L. H. Bailey; Zea mays L. saccharata Koern.;Zea mays L. var. everta (Praecox) Sturt.;Zea mays L. convar. microsperma Koern. | Corn; Maize: “1MA” | ZEAAA\_MAY\_MAY\_**1MA** |
| Sweet Corn: “2SW”  | ZEAAA\_MAY\_MAY\_**1SW** |
| Popcorn: “3PO” | ZEAAA\_MAY\_MAY\_**3PO** |

 The TC may wish to consider whether to invite the TWA and TWV, at their sessions in 2023, to consider whether to create variety groups for the UPOV code ZEAAA\_MAY\_MAY replacing infra-specific botanical names, as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| Principal botanical name | Other botanical name(s) | Variety groups | Proposed UPOV code with group information |
| *Zea mays* L. subsp. *mays* | Zea mays var ceratina L.; Zea mays var. indentata (Sturtev.) L. H. Bailey; Zea mays var. indurata (Sturtev.) L. H. Bailey;Zea mays var. saccharata (Sturtev.) L. H. Bailey; Zea mays L. saccharata Koern.;Zea mays L. var. everta (Praecox) Sturt.;Zea mays L. convar. microsperma Koern. | Corn; Maize: “1MA” | ZEAAA\_MAY\_**GMA** |
| Sweet Corn: “2SW”  | ZEAAA\_MAY\_**GSW** |
| Popcorn: “3PO” | ZEAAA\_MAY\_**GPO** |

### Proposed amendments considered by the TWF and TWO in 2022

 The following section present proposals for amendments to UPOV codes considered by the TWF and TWO at their session in 2022.

 Section 4.3 (d) of the “Guide to the UPOV Code System” provides the following:

“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”.

 On the basis of the conclusions at the TC on the matters presented in the following sections, 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. 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.

##### UPOV code for Hylocereus species

 The Office of the Union was informed of the reclassification of certain *Hylocereus* species *to Selenicereus* species.

 The current entries in the GENIE database for certain *Hylocereus* 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 | Number of entries in PLUTO |
| HYLOC | *Hylocereus* (A. Berger) Britton & Rose | n.a. | Asian bleeding-heart; Bleeding-heart | 0 |
| HYLOC\_COS | *Hylocereus costaricensis* (F. A. C. Weber) Britton & Rose | n.a. |  | 0 |
| HYLOC\_GUA | *Hylocereus guatemalensis* (Eichlam) Britton & Rose | n.a. |  | 0 |
| HYLOC\_GUN | hybrids between *Hylocereus guatemalensis* (Eichlam) Britton & Rose and *Hylocereus undatus* (Haw.) Britton et Rose | n.a. |  | 1 |
| HYLOC\_POL | *Hylocereus polyrhizus* (F. A. C. Weber) Britton & Rose | n.a. | pitahaya | 0 |
| HYLOC\_UND | *Hylocereus undatus* (Haw.) Britton & Rose | *Cereus undatus* Haw. | belle-of-the-night; dragon-fruit; moonlight cactus; night-blooming cereus; queen-of-the-night; red pitaya; strawberry-pear | 23 |

 At their sessions in 2022, the TWO[[9]](#footnote-10) and TWF[[10]](#footnote-11) agreed to delete the UPOV Codes HYLOC, HYLOC\_COS, HYLOC\_GUA, HYLOC\_GUN, HYLOC\_POL and HYLOC\_UND, as indicated below. The genus and species *Hylocereus, H. costaricensis, H. guatemalensis, hybrids between H. guatemalensis* and *H. undatus, H. polyrhizus,* and *H. undatus* would be covered as synonym of *Selenicereus, S. guatemalensis,* Hybrids between *S. guatemalensis* and *S. undatus, S. monacanthus,* and *S. undatus* under new UPOV codesSELEN, SELEN\_COS, SELEN\_GUA, SELEN\_GUN, SELEN\_POL and SELEN\_UND, respectively, which the Office of the Union would create (see document TWO/54/6 “Report”, paragraph 45).

| Current | Proposal |
| --- | --- |
| UPOV code | Principal botanical name | Other botanical name(s) | UPOV code | Principal botanical name | Other botanical name(s) |
| HYLOC | *Hylocereus* (A. Berger) Britton & Rose | n.a. | SELEN | *Selenicereus* (A. Berger) Britton & Rose | *Hylocereus* (A. Berger) Britton & Rose |
| HYLOC\_COS | *Hylocereus costaricensis* (F. A. C. Weber) Britton & Rose | n.a. | SELEN\_COS | *Selenicereus costaricensis* (F. A. C. Weber) S. Arias & N. Korotkova | *Hylocereus costaricensis* (F. A. C. Weber) Britton & Rose |
| HYLOC\_GUA | *Hylocereus guatemalensis* (Eichlam) Britton & Rose | n.a. | SELEN\_GUA | *Selenicereus guatemalensis* (Eichlam ex Weing.) D. R. Hunt | *Hylocereus guatemalensis* (Eichlam) Britton & Rose |
| HYLOC\_GUN | hybrids between *Hylocereus guatemalensis* (Eichlam) Britton & Rose and *Hylocereus undatus* (Haw.) Britton et Rose | n.a. | SELEN\_GUN | Hybrids between *Selenicereus guatemalensis* (Eichlam) Britton & Rose and S*elenicereus undatus* (Haw.) Britton et Rose | hybrids between *Hylocereus guatemalensis* (Eichlam) Britton & Rose and *Hylocereus undatus* (Haw.) Britton et Rose |
| HYLOC\_POL | *Hylocereus polyrhizus* (F. A. C. Weber) Britton & Rose | n.a. | SELEN\_POL | *Selenicereus monacanthus* (Lem.) D. R. Hunt | *Hylocereus polyrhizus* (F. A. C. Weber) Britton & Rose |
| HYLOC\_UND | *Hylocereus undatus* (Haw.) Britton & Rose | *Cereus undatus* Haw. | SELEN\_UND | *Selenicereus undatus* (Haw.) D. R. Hunt | *Cereus undatus* Haw. |

##### UPOV code for Calathea species

 The Office of the Union was informed of the reclassification of certain *Calathea* species to *Goeppertia* species.

 The current entries in the GENIE database for certain *Calathea 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 | Number of entries in PLUTO |
| CALAT | *Calathea* G.F.W. Mey. | n.a. | n.a. | 65 |
| CALAT\_CRO  | *Calathea crocata* E. Morren & Joriss. | *Goeppertia crocata* (É. Morren & Joriss.) Borchs. & S. Suárez | n.a. | 8 |
| CALAT\_ECU | *Calathea ecuadoriana* H. A. Kenn. | n.a. | n.a. | 1 |
| CALAT\_LIE | *Calathea lietzei* E. Morren | n.a. | n.a. | 7 |
| CALAT\_LOE | *Calathea loeseneri* J. F. Macbr. | n.a. | n.a. | 0 |
| CALAT\_LRO | *Calathea loeseneri* J. F. Macbr. X *Calathea roseopicta* (Linden) Regel | n.a. | n.a. | 5 |
| CALAT\_ROS | *Calathea roseopicta* (Linden) Regel | *Goeppertia roseopicta* (Linden) Borchs. & S. Su rez | n.a. | 22 |
| CALAT\_WAR | *Calathea warscewiczii* (Klotzsch) Körn. | *Calathea warscewiczii* (Mathieu ex Planch.) Körn. | n.a. | 3 |

 At its session in 2022, the TWO agreed to delete the UPOV Codes CALAT\_CRO, CALAT\_LOE, CALAT\_LRO, CALAT\_ROS and CALAT\_WAR, as indicated below. The species *Calathea crocata, Calathea loeseneri, Calathea loeseneri, x Calathea roseopicta, Calathea roseopicta, and Calathea warscewiczii* would be covered as synonym of *Goeppertia, Goeppertia, Goeppertia loeseneri × Goeppertia roseopicta, Goeppertia roseopicta,* and *Goeppertia warscewiczii* under new UPOV codesGOEPP\_CRO, GOEPP\_LOE, GOEPP\_LRO, GOEPP\_ROS and GOEPP\_WAR, respectively, which the office of the union would create (see documents TWO/54/6 “Report”, paragraph 46 and TWF/53/14 “Report”, paragraph 35).

| Current | Proposal |
| --- | --- |
| UPOV code | Principal botanical name | Other botanical name(s) | UPOV code | Principal botanical name | Other botanical name(s) |
| CALAT\_CRO  | *Calathea crocata* E. Morren & Joriss. | *Goeppertia crocata* (É. Morren & Joriss.) Borchs. & S. Suárez | GOEPP\_CRO | *Goeppertia crocata* (É. Morren & Joriss.) Borchs. & S. Suárez | *Calathea crocata* É. Morren & Joriss. |
| CALAT\_LOE | *Calathea loeseneri* J. F. Macbr. | n.a. | GOEPP\_LOE | *Goeppertia loeseneri* (J. F. Macbr.) Borchs. & S. Suárez | *Calathea loeseneri* J. F. Macbr. |
| CALAT\_LRO | Calathea loeseneri J. F. Macbr. X Calathea roseopicta (Linden) Regel | n.a. | GOEPP\_LRO | *Goeppertia loeseneri* (J. F. Macbr.) Borchs. & S. Suárez × *Goeppertia roseopicta* (Linden) Borchs. & S. Suárez | n.a.  |
| CALAT\_ROS | *Calathea roseopicta* (Linden) Regel | *Goeppertia roseopicta* (Linden) Borchs. & S. Su rez | GOEPP\_ROS | *Goeppertia roseopicta* (Linden) Borchs. & S. Suárez | *Calathea roseopicta* (Linden) Regel |
| CALAT\_WAR | *Calathea warscewiczii* (Klotzsch) Körn. | *Calathea warscewiczii* (Mathieu ex Planch.) Körn. | GOEPP\_WAR | *Goeppertia warscewiczii* (L. Mathieu ex Planch.) Borchs. & S. Suárez | *Calathea warscewiczii* (L. Mathieu ex Planch.) Planch. & Linden  |

 *The TC is invited to consider:*

 (a) a proposal to revise document UPOV/INF/23 “UPOV Code System” ” to clarify the maximum number of characters to be used in the appended element to UPOV codes, as set out in paragraphs 10 and 11 of this document;

 *(b) inviting the TWA and TWV, at their sessions in 2023, to consider the proposal to create variety groups tor UPOV codes for* Beta vulgaris *L. ssp.* vulgaris, *as set out in paragraph 18 of this document, respectively;*

 *(c) inviting the TWV, at its session in 2023, to consider the proposal to create variety groups for UPOV codes for* Brassica oleracea*, as set out in paragraph 19 of this document;*

 *(d) inviting the TWA and TWV, at their sessions in 2023, to consider whether to create variety groups for the UPOV code ZEAAA\_MAY\_MAY, as set out in paragraph 21;*

 *(e) the proposal to delete the UPOV codes HYLOC, HYLOC\_COS, HYLOC\_GUA, HYLOC\_GUN, HYLOC\_POL and HYLOC\_UND, as set out in paragraph 27 of this document; and*

 *(f) the proposal to delete the UPOV codes* CALAT\_CRO, CALAT\_LOE, CALAT\_LRO, CALAT\_ROS and CALAT\_WAR*, as set out in paragraph 30 of this document.*

#

# Matters for information

## GENIE database

### Background

 The GENIE database (<http://www.upov.int/genie/en/>) has been developed to provide online information on the status of protection, cooperation in examination, experience in DUS testing and existence of UPOV Test Guidelines for different GENera and specIEs (hence GENIE). The GENIE database is used to generate the relevant Council and TC documents concerning that information[[11]](#footnote-12).

 The GENIE database is the repository of the UPOV codes and provides information concerning the principal and alternative botanical names and common names of plant taxa.

### UPOV code developments

 In 2021, 131 new UPOV codes were created. The total number of UPOV codes in the GENIE database as of December 31, 2021 was 9,342.

|  |  |
| --- | --- |
|  | Year |
|  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| New UPOV codes | 173 | 212 | 209 | 577 | 188 | 173 | 440 | 242 | 243 | 177 | 131 |
| Amendments | 12 | 5 | 47\* | 37 | 11 | 16 | 1 | 5 | 3 | 44 | 35 |
| Total UPOV Codes | 6,851 | 7,061 | 7,251 | 7,808 | 7,992 | 8,149 | 8,589 | 8,844 | 9,077 | 9,213 | 9,342 |

\* including changes to UPOV codes resulting from the amendment of the “Guide to the UPOV Code System” concerning hybrids (see document TC/49/6).

### TWP checking

 Section 3.3 of the “Guide to the UPOV Code System” provides the following:

“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”.

 In accordance with the procedure set out in Section 3.3 of the Guide to the UPOV Code System, the Office of the Union prepared tables of UPOV code additions and amendments, for checking by the relevant authorities, for each of the Technical Working Party (TWP) sessions in 2022.

 Experts of the Technical Working Party for Vegetables (TWV), Technical Working Party for Ornamental Plants and Forest Trees (TWO), Technical Working Party for Agricultural Crops (TWA) and Technical Working Party for Fruit Crops (TWF) have been invited to check the amendments, new UPOV codes or information, and UPOV codes used in the PLUTO database for the first time, as reproduced in Annex IV to document TWP/6/4 “UPOV information databases” and submit comments to the Office of the Union by December 31, 2022.

## Proposals for amending UPOV codes

### Replacing complex botanical nomenclature by variety groups

 Section 4.3 (d) of the “Guide to the UPOV Code System” provides the following:

“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”.

 On the basis of the conclusions at the TC on the matters presented in the following sections, 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. 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.

##### UPOV codes for Brassica oleracea

 On the basis of the conclusions at the TC, the UPOV codes BRASS\_OLE\_GA and BRASS\_OLE\_GB will be deleted on January 1, 2023.

##### UPOV codes for Citrus

 On the basis of the conclusions at the TC, the UPOV code CITRU\_AUM will be amended to append information to create groups “1MA” for mandarins and “2OR” for oranges, as following, on January 1, 2023.

|  |  |
| --- | --- |
| Old  | New |
| Entries in PLUTO | TG | UPOV Code | Principal botanical name | Other botanical name(s) | UPOV Code | Principal botanical name | Other botanical name(s) |
|  10 | TG/202 | CITRU\_AUM | Citrus aurantium L. | n.a. | CITRU\_AUM**\_1MA**CITRU\_AUM**\_2OR** | Citrus ×aurantium L. | Citrus amara Link; Citrus bigarradia Loisel.; Citrus intermedia hort. ex Tanaka; Citrus taitensis Risso; Citrus vulgaris Risso; Citrus ×aurantium subsp. aurantium L.; Citrus ×aurantium subsp. jambiri Engl.; Citrus ×aurantium subsp. keonla Engl.; Citrus ×aurantium subsp. suntara Engl.; Citrus ×aurantium var. aurantium L.; Citrus ×aurantium var. citrina Lush.; Citrus ×bigarradia var. volkameriana Risso; Citrus ×clementina hort. ex Tanaka; Citrus ×crenatifolia Lush.; Citrus reticulata × C. maxima |
|  115 | TG/201 | CITRU\_CLE | Citrus clementina hort. ex Tanaka | n.a. |
|  1 | / | CITRU\_MRE | Citrus maxima X Citrus reticulata | n.a. |
|  0 | TG/201 | CITRU\_CRE | Citrus crenatifolia Lush. | n.a. |
|  0 | TG/204 | CITRU\_INT | Citrus intermedia hort. ex Tanaka | n.a. |

 The UPOV codes CITRU\_CLE, CITRU\_MRE, CITRU\_CRE, CITRU\_INT, CITRU\_AUR, CITRU\_DAV, CITRU\_EXC, CITRU\_KER, CITRU\_BAL and CITRU\_KAR and CITRU\_BEN will be deleted on the said date.

##### UPOV codes for Zea mays

 On the basis of the conclusions at the TC, the UPOV code ZEAAA\_MAY\_SAC, ZEAAA\_MAY\_EVE and ZEAAA\_MAY\_MIC will be deleted, on January 1, 2023.

 The TC is invited to note:

 *(a) that 131 new UPOV codes were created in 2021 and a total of 9,342 UPOV codes are included in the GENIE database;*

 *(b) that the TWV, at its fifty-sixth session, agreed that variety groups should be used to replace complex infra-specific botanical names, such as for* Beta vulgaris, Brassica oleracea *and* Cichorium intybus*;*

 *(c) the invitation for the Netherlands to further develop the proposal to create variety groups for* Beta vulgaris, Brassica oleracea *and* Cichorium intybus *to be presented at the fifty-seventh session of the TWV;*

 *(d) the invitation by the TWV for the Office of the Union to develop proposals for revising the UPOV codes with appended information according to the approach to use variety groups for complex botanical names;*

 *(e) that the UPOV code CITRU\_AUM will be amended to append information to create groups “1MA” for mandarins and “2OR” for oranges, as set out in paragraph 41; and*

 *(f) that, on the basis of the conclusions at the TC, at its fifty-seventh session, the UPOV codes BRASS\_OLE\_GA, BRASS\_OLE\_GB, CITRU\_AUR, CITRU\_CLE, CITRU\_MRE, CITRU\_CRE, CITRU\_INT, CITRU\_AUR, CITRU\_DAV, CITRU\_EXC, CITRU\_KER, CITRU\_BAL, CITRU\_KAR, CITRU\_BEN, ZEAAA\_MAY\_SAC, ZEAAA\_MAY\_EVE and ZEAAA\_MAY\_MIC will be deleted, as set out in paragraphs 40, 42 and 43, on January 1, 2023, and the members of the Union and contributors of data to the PLUTO database will be informed of the changes by means of a Circular in advance.*

[Annex follows]

AMENDMENTS TO THE UPOV CODES FOR BETA VULGARIS, *BRASSICA OLERACEA, CITRUS* AND *ZEA MAYS* AS AGREED AT THE TECHNICAL COMMITTEE, AT ITS FIFTY-SEVENTH SESSION

1. The following amendments to UPOV codes were agreed by the TC at its fifty-seventh session[[12]](#footnote-13) (see document TC/57/25 “Report”, paragraphs 69 to 80).
2. The TC noted that members of the Union and contributors of data to the PLUTO database would be informed of the changes to UPOV codes and the date of the changes by means of a circular in advance.

## UPOV codes for *Beta vulgaris*

1. The TC, at its fifty-seventh session, agreed to amend the UPOV codes for *Beta vulgaris* L. subsp. *vulgaris*, as reproduced in Appendix I to this Annex.
2. The TC agreed to append information to UPOV codes for *Beta vulgaris* L. subsp. *vulgaris* to establish the following groups:

(i) Fodder beet group: Class 2.1 (“21FB”),

(ii) Sugar beet group: Class 2.1 (“21SB”),

(iii) Beetroot group: Class 2.2 (“22BR”),

(iv) Leaf beet group: Class 2.2 (“22LB”).

1. The TC agreed that information on denomination classes in document UPOV/EXN/DEN “Explanatory notes on variety denominations under the UPOV Convention” would need to be updated as follows:

|  | Botanical names | UPOV codes |
| --- | --- | --- |
| Class 2.1 | *B. vulgaris* L. ssp. *vulgaris* (synonym to *B. vulgaris* L. var. *alba* DC.), *B. vulgaris* L. ssp. *vulgaris* (synonym to *B. vulgaris* L. var. *altissima)* | BETAA\_VUL\_VUL\_21FB; BETAA\_VUL\_VUL\_21SB |
| Class 2.2 | *Beta vulgaris* ssp. *vulgaris* var. *conditiva* Alef. (synonym to *B. vulgaris* L. var. *rubra* L.), B. *vulgaris* L. var. *cicla* L., *B. vulgaris* L. ssp. *vulgaris* var. *vulgaris* | BETAA\_VUL\_VUL\_22BR; BETAA\_VUL\_VUL\_22LB |
| Class 2.3 | *Beta* other than classes 2.1 and 2.2. | other than classes 2.1and 2.2 |

## UPOV codes for *Brassica oleracea*

1. The TC, at its fifty-seventh session, agreed to amend the botanical names for *Brassica oleracea* in accordance with GRIN, with the consequent changes to the UPOV codes in relation to groups, , as reproduced in Appendix II to this Annex.
2. The TC agreed appending information to the UPOV code for *Brassica oleracea* L. var. *capitata* L. (BRASS\_OLE\_GC) to create variety groups or types for White and Red Cabbage, as follows:

(i) White Cabbage: 1W (e.g. BRASS\_OLE\_GC\_1W)

(ii) Red Cabbage: 2R (e.g. BRASS\_OLE\_GC\_2R)

## UPOV codes for *Citrus*

1. The TC, at its fifty-seventh session, agreed to append information to UPOV code CITRU\_AUM to create groups “1MA” for mandarins; and “2OR” for oranges.
2. The TC agreed to amend the UPOV code CITRU\_AUM, following the reclassification of *Citrus clementina* hort. ex *Tanaka* (UPOV code: CITRU\_CLE) as a synonym of *Citrus aurantium* L. (UPOV code: CITRU\_AUM), as reproduced in Appendix III to this Annex.
3. The TC agreed with the proposal from the TWF for partial revision of the Test Guidelines for *Citrus* to move obsolete species from the “principle botanical names” box to the “alternative botanical names”.

## UPOV codes ZEAAA\_MAY\_SAC, ZEAAA\_MAY\_EVE and ZEAAA\_MAY\_MIC

1. The TC, at its fifty-seventh session, agreed to delete the UPOV Codes ZEAAA\_MAY\_SAC, ZEAAA\_MAY\_EVE and ZEAAA\_MAY\_MIC, that would be covered by the UPOV code ZEAAA\_MAY\_MAY, as reproduced in Appendix IV to this Annex.
2. The TC agreed to append information on variety types or groups to the UPOV code ZEAAA\_MAY\_MAY to establish the following variety types or groups:

(i) Corn; Maize: “1MA”,

(ii) Sweet Corn: “2SW”,

(iii) Popcorn: “3PO”.

[Appendix I follows]

amendments to the upov codes for *beta vulgaris* subsp. *vulgaris*

Agreed by the Technical Committee, at its fifty-seventh session

|  |  |
| --- | --- |
| Old | New |
| Entries in PLUTO | TG | UPOV Code | Principal botanical name | Other botanical name(s) | UPOV Code | Principal botanical name | Other botanical name(s) |
| 5 | / | BETAA\_VUL\_GV | Beta vulgaris L. subsp. vulgaris | n.a. | BETAA\_VUL\_VUL | Beta vulgaris L. subsp. vulgaris | Beta altissima Steud.; Beta brasiliensis hort. ex Voss, nom. inval.; Beta chilensis hort.; Beta cicla (L.) L.; vulgaris f. rhodopleura (Alef.) Helm; vulgaris f. vulgaris L.; vulgaris subsp. cicla (L.) Schübl. & G. Martens; Beta vulgaris subvar. flavescens DC.; Beta vulgaris var. altissima Döll; Beta vulgaris var. cicla L.; Beta vulgaris var. conditiva Alef.; Beta vulgaris var. flavescens (DC.) Mansf.; Beta vulgaris var. rapacea W. D. J. Koch; Beta vulgaris var. rubra DC.; Beta vulgaris var. saccharifera Alef.; Beta vulgaris var. vulgaris L.; Beta vulgaris var.-gr. crassa Alef. |
| 1298 | TG/150 | BETAA\_VUL\_GVA | Beta vulgaris L. ssp. vulgaris var. alba DC. | Beta vulgaris L. ssp. vulgaris var. crassa Alef.; Beta vulgaris L. ssp. vulgaris var. crassa Mansf.; Beta vulgaris L. ssp. vulgaris var. rapacea K. Koch |
| 811 | TG/60 | BETAA\_VUL\_GVC | Beta vulgaris L. ssp. vulgaris var. conditiva Alef. | Beta vulgaris L. ssp. vulgaris var. esculenta L.; Beta vulgaris L. ssp. vulgaris var. hortensis |
| 195 | TG/106 | BETAA\_VUL\_GVF | Beta vulgaris L. ssp. vulgaris var. flavescens DC. | Beta vulgaris L. ssp. vulgaris var. cicla (L.) Ulrich; Beta vulgaris L. ssp. vulgaris var. vulgaris |
| 21799 | / | BETAA\_VUL\_GVS | Beta vulgaris L. ssp. vulgaris var. saccharifera Alef. | Beta vulgaris L. ssp. vulgaris var. altissima Doell |

[Appendix II follows]

AMENDMENTS TO THE UPOV CODES FOR *BRASSICA OLERACEA*

Agreed by the Technical Committee, at its fifty-seventh session

|  |  |  |
| --- | --- | --- |
|  | Old  | New |
| Entries in PLUTO | UPOV code | Principal botanical name | Other botanical name(s) | UPOV code | Principal botanical name | Other botanical name(s) |
| 148 | BRASS\_OLE | *Brassica oleracea* L. | n.a. | BRASS\_OLE | *Brassica oleracea* L. | *Brassica oleracea* L. *convar. acephala* (DC.) Alef.;*Brassica oleracea* L. convar. *botrytis* (L.) Alef.  |
| 239 | BRASS\_OLE\_GA | *Brassica oleracea* L. *convar. acephala* (DC.) Alef. | n.a. | [to delete] | n.a. | n.a. |
| 21 | BRASS\_OLE\_GAM | *Brassica oleracea* L. *convar. acephala* (DC.) Alef. *var. medullosa* Thell. | *Brassica oleracea* L. var. *medullosa* Thell. | BRASS\_OLE\_GAM | *Brassica oleracea* L. var. *medullosa* Thell. | *Brassica oleracea* L. *convar. acephala* (DC.) Alef. *var. medullosa* Thell. |
| 318 | BRASS\_OLE\_GAS | *Brassica oleracea* L. *convar. acephala (DC.)* Alef. var. *sabellica* L. | *Brassica oleracea* L. var. *sabellica* L. | BRASS\_OLE\_GAS | *Brassica oleracea* L.var. *sabellica* L. | *Brassica oleracea* L. *convar. acephala (DC.)* Alef. var. *sabellica* L. |
| 132 | BRASS\_OLE\_GAV | *Brassica oleracea* L. *convar. acephala* (DC.) Alef. var. *viridis* L. | *Brassica oleracea* L.var. *viridis* L. | BRASS\_OLE\_GAV | *Brassica oleracea* L.var. *viridis* L. | *Brassica oleracea* L. *convar. acephala* (DC.) Alef. var. *viridis* L. |
| 392 | BRASS\_OLE\_GB | *Brassica oleracea* L. convar. *botrytis* (L.) Alef. | n.a. | [to delete] | n.a. | n.a. |
| 5,689 | BRASS\_OLE\_GBB | *Brassica oleracea* L. *convar. botrytis* (L.) Alef. var. *botrytis* | *Brassica cauliflora* lizg | BRASS\_OLE\_GBB | *Brassica oleracea* L. var. *botrytis* L. | *Brassica oleracea* L. *convar. botrytis* (L.) Alef. var. *botrytis;**Brassica cauliflora lizg* |
| 458 | BRASS\_OLE\_GC | *Brassica oleracea* L. convar. *capitata* (L.) Alef. | *Brassica oleracea* L. var. *capitata* L. | BRASS\_OLE\_GC | *Brassica oleracea* L.var. *capitata* L. | *Brassica oleracea* L. convar. *capitata* (L.) Alef.;*Brassica oleracea* L. convar. *capitata* (L.) Alef. var. *capitata* (L.) Alef.*;* *Brassica oleracea L. convar. capitata* (L.) Alef. var. *alba* DC.;*Brassica oleracea* L. convar. *capitata* (L.) Alef. var. *capitata* L. f. *alba* DC.*Brassica oleracea* L. *convar. capitata* (L.) Alef.var. *rubra* (L.) Thell.;Brassica oleracea L. convar. capitata (L.) Alef. var. capitata L. f. rubra (L.) Thell.;*Brassica oleracea* L. convar. *capitata* (L.) Alef. var. *alba* DC. x *Brassica oleracea L. convar. capitata* (L.) Alef. var. *rubra* (L.) Thell |
| 6,241 | BRASS\_OLE\_GCA | *Brassica oleracea L. convar. capitata* (L.) Alef. var. *alba* DC. | *Brassica oleracea* L. convar. *capitata* (L.) Alef. var. *capitata* L. f. *alba* DC. | [to delete] | n.a. | n.a. |
| 975 | BRASS\_OLE\_GCR | *Brassica oleracea* L. *convar. capitata* (L.) Alef.var. *rubra* (L.) Thell | Brassica oleracea L. convar. capitata (L.) Alef. var. capitata L. f. rubra (L.) Thell. | [to delete] | n.a. | n.a. |
| 1,284 | BRASS\_OLE\_GCS | *Brassica oleracea* L.convar. *capitata* (L.) Alef. var. *sabauda* L. | *Brassica oleracea* L. convar. *capitata (L.)* Alef. var. *bullata* DC. | BRASS\_OLE\_GCS | *Brassica oleracea* L.var. *sabauda* L. | *Brassica oleracea* L.convar. *capitata* (L.) Alef. var. *sabauda* L. ;*Brassica oleracea* L. convar. *capitata (L.)* Alef. var. *bullata* DC. |

 [Appendix III follows]

AMENDMENTS TO UPOV codes for *citrus*

Agreed by the Technical Committee, at its fifty-seventh session

|  |  |
| --- | --- |
| Old  | New |
| Entries in PLUTO | TG | UPOV Code | Principal botanical name | Other botanical name(s) | UPOV Code | Principal botanical name | Other botanical name(s) |
|  10 | TG/202 | CITRU\_AUM | Citrus aurantium L. | n.a. | CITRU\_AUM | Citrus ×aurantium L. | Citrus amara Link; Citrus bigarradia Loisel.; Citrus intermedia hort. ex Tanaka; Citrus taitensis Risso; Citrus vulgaris Risso; Citrus ×aurantium subsp. aurantium L.; Citrus ×aurantium subsp. jambiri Engl.; Citrus ×aurantium subsp. keonla Engl.; Citrus ×aurantium subsp. suntara Engl.; Citrus ×aurantium var. aurantium L.; Citrus ×aurantium var. citrina Lush.; Citrus ×bigarradia var. volkameriana Risso; Citrus ×clementina hort. ex Tanaka; Citrus ×crenatifolia Lush.; Citrus reticulata × C. maxima |
|  115 | TG/201 | CITRU\_CLE | Citrus clementina hort. ex Tanaka | n.a. |
|  1 | / | CITRU\_MRE | Citrus maxima X Citrus reticulata | n.a. |
|  0 | TG/201 | CITRU\_CRE | Citrus crenatifolia Lush. | n.a. |
|  0 | TG/204 | CITRU\_INT | Citrus intermedia hort. ex Tanaka | n.a. |
|  12 | TG/203 | CITRU\_AUR | Citrus aurantiifolia (Christm.) Swingle | Citrus ×javanica Blume | CITRU\_AUR | Citrus ×aurantiifolia (Christm.) Swingle | Citrus acida Roxb.; Citrus acida var. acida Roxb.; Citrus aurata Risso; Citrus excelsa var. davaoensis Wester; Citrus grandis Hassk.; Citrus grandis var. grandis Hassk.; Citrus grandis var. oblonga Hassk.; Citrus grandis var. sphaerocarpos Hassk.; Citrus hystrix subsp. acida (Roxb.) Engl.; Citrus lima Lunan; Citrus limetta var. aromatica Wester; Citrus limonellus Hassk.; Citrus limonellus var. limonellus Hassk.; Citrus limonellus var. oxycarpus Hassk.; Citrus medica var. acida (Roxb.) Hook. f.; Citrus ×aurantiifolia var. aurantiifolia (Christm.) Swingle; Citrus ×davaoensis (Wester) Tanaka; Citrus ×excelsa Wester; Citrus ×javanica Blume; Limonia aurantiifolia Christm., Citrus medica × C. micrantha |
|  0 | TG/203 | CITRU\_AUA | Citrus aurata Risso | n.a. |
|  0 | TG/203 | CITRU\_DAV | Citrus davaoensis (Wester) Tanaka | n.a. |
|  0 | TG/203 | CITRU\_EXC | Citrus excelsa Wester | n.a. |
|  0 | / | CITRU\_HYS | Citrus hystrix DC. | n.a. | CITRU\_HYS | Citrus hystrix DC. | Citrus auraria Michel; Citrus balincolong (Tanaka) Tanaka; Citrus boholensis (Wester) Tanaka; Citrus celebica Koord.; Citrus celebica var. celebica Koord.; Citrus combara Raf.; Citrus echinata St.-Lag.; Citrus hyalopulpa Tanaka; Citrus hystrix subsp. hystrix DC.; Citrus hystrix var. balincolong Tanaka; Citrus hystrix var. boholensis Wester; Citrus hystrix var. hystrix DC.; Citrus kerrii (Swingle) Tanaka; Citrus latipes Hook. f. & Thomson; Citrus macroptera var. annamensis Tanaka; Citrus macroptera var. kerrii Swingle; Citrus papeda Miq.; Citrus papuana F. M. Bailey; Citrus torosa Blanco; Citrus vitiensis Tanaka; Fortunella sagittifolia K. M. Feng & P. I Mao; Papeda rumphii Hassk. |
|  0 | TG/203 | CITRU\_KER | Citrus kerrii (Swingle) Tanaka | Citrus hyalopulpa Tanaka |
|  149 | TG/203 | CITRU\_LIM | Citrus ×limon (L.) Osbeck | Citrus limon (L.) Burm. f.; Citrus medica var. limon L.; Citrus rissoi Risso; Citrus ×limonia Osbeck; Citrus ×mellarosa Risso; Citrus ×volkameriana (Risso) V. Ten. & Pasq. | CITRU\_LIM | Citrus ×limon (L.) Osbeck | Citrus balotina Poit. & Turpin; Citrus bergamota Raf.; Citrus karna Raf.; Citrus limonum Risso; Citrus medica var. limon L.; Citrus rissoi Risso; Citrus ×limon (L.) Burm. f.; Citrus ×limonia Osbeck; Citrus ×mellarosa Risso; Citrus ×volkameriana (Risso) V. Ten. & Pasq.; a hybrid of Citrus × aurantium (C. maxima × C. reticulata) × C. medica |
|  0 | TG/203 | CITRU\_BAL | Citrus balotina Poit. & Turpin | n.a. |
|  0 | TG/203 | CITRU\_KAR | Citrus karna Raf. | n.a. |
|  355 | TG/201 | CITRU\_RET | Citrus reticulata Blanco | n.a. | CITRU\_RET | Citrus reticulata Blanco | Citrus benikoji hort. ex Tanaka; Citrus daoxianensis S. W. He & G. F. Liu; Citrus depressa var. vangasay (Bojer) H. Perrier; Citrus nobilis Andrews; Citrus vangasay Bojer |
|  0 | TG/201 | CITRU\_BEN | Citrus benikoji hort. ex Tanaka | n.a. |

[Appendix IV follows]

AMENDMENTS TO UPOV codes for *citrus*

Agreed by the Technical Committee, at its fifty-seventh session

|  |  |  |
| --- | --- | --- |
| Entries in PLUTO | **Current** | **Proposal** |
| UPOV code | Principal botanical name | Other botanical name(s) | UPOV code | Principal botanical name | Other botanical name(s) |
| 1,837 | ZEAAA\_MAY\_SAC | *Zea mays* L. *saccharata* Koern. | n.a. | [to delete] | n.a. | n.a. |
| 85 | ZEAAA\_MAY\_EVE | *Zea mays* L. var. *everta* (Praecox) Sturt. | n.a. | [to delete] | n.a. | n.a. |
| 100 | ZEAAA\_MAY\_MIC | *Zea mays* L. convar. *microsperma* Koern. | n.a. | [to delete] | n.a. | n.a. |
| 764 | ZEAAA\_MAY\_MAY  | *Zea mays* L. subsp. *mays* | *Zea mays* var *ceratina* L.; *Zea mays* var. *indentata* (Sturtev.) L. H. Bailey; *Zea mays* var. *indurata* (Sturtev.) L. H. Bailey; *Zea mays* var. *saccharata* (Sturtev.) L. H. Bailey | ZEAAA\_MAY\_MAY | *Zea mays* L. subsp. *mays* | *Zea mays* var *ceratina* L.; *Zea mays* var. *indentata* (Sturtev.) L. H. Bailey; *Zea mays* var. *indurata* (Sturtev.) L. H. Bailey;*Zea mays* var. *saccharata* (Sturtev.) L. H. Bailey; *Zea mays* L. *saccharata* Koern.;*Zea mays* L. var. *everta* (Praecox) Sturt.;*Zea mays* L. convar. *microsperma* Koern. |

 [End of Appendix IV and of document]

1. Held via electronic means on October 25 and 26, 2021 [↑](#footnote-ref-2)
2. at its fifty-sixth session, held via electronic means, from April 18 to 22, 2022 [↑](#footnote-ref-3)
3. at its fifty-first session, hosted by the United Kingdom and held via electronic means, from May 23 to 27, 2022 [↑](#footnote-ref-4)
4. at its fifty-fourth session, , hosted by Germany held via electronic means, from June 13 to 17, 2022 [↑](#footnote-ref-5)
5. at its fifty-third session, held via electronic means, from July 11 to 15, 2022 [↑](#footnote-ref-6)
6. at its first session, held via electronic means, from September 19 to 23, 2022 [↑](#footnote-ref-7)
7. Held via electronic means on October 25 and 26, 2021 [↑](#footnote-ref-8)
8. Held via electronic means on April 18 to 22, 2022 Please add when and where [↑](#footnote-ref-9)
9. at its fifty-fourth session, , hosted by Germany held via electronic means, from June 13 to 17, 2022 [↑](#footnote-ref-10)
10. at its fifty-third session, held via electronic means, from July 11 to 15, 2022 [↑](#footnote-ref-11)
11. See documents C/[session]/INF/6 “List of the taxa protected by the members of the Union; C/[session]/INF/5 “Cooperation in Examination”; TC/[session]/INF/4 “List of genera and species for which authorities have practical experience in the examination of distinctness, uniformity and stability”; and TC/[session]/2 “Test Guidelines”. [↑](#footnote-ref-12)
12. Held via electronic means on October 25 and 26, 2021 [↑](#footnote-ref-13)