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

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| Technical Working Party for Vegetables  Fifty-Fourth Session  Brasilia, Brazil, May 11 to 15, 2020  Technical Working Party for Ornamental Plants and Forest Trees  Fifty-Second Session  Roelofarendsveen, Netherlands, June 8 to 12, 2020  Technical Working Party for Agricultural Crops  Forty-Ninth Session  Saskatoon, Canada, June 22 to 26, 2020  Technical Working Party for Fruit Crops  Fifty-First Session  Nîmes, France, July 6 to 10, 2020  Technical Working Party on Automation and Computer Programs  Thirty-Eighth Session  Alexandria, United States of America, September 21 to 23, 2020 | TWP/4/4  Original: English  Date: April 17, 2020 |

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 provide an update on developments concerning the GENIE database, UPOV Codes and the PLUTO database.

The TWPs are invited to:

(a) note that 208 new UPOV codes were created in 2019 and a total of 9,049 UPOV codes are included in the GENIE database;

(b) note that the TC, at its fifty-fifth session, agreed to postpone the amendment to the “Guide to the UPOV Code System” and to explore alternative solutions to enable UPOV Codes to provide useful information on variety groups or types for DUS testing purposes and to invite the Office of the Union to prepare a document with proposals, for consideration at its fifty sixth session;

(c) the developments concerning alternative solutions to enable UPOV Codes to provide useful information on variety groups or types for DUS testing purposes;

(d) note that the TC, at its fifty-fifth session, agreed to amend the UPOV codes for the genera and species set out in Annex IV this document;

(e) check the amendments, new UPOV codes or information, and UPOV codes used in the PLUTO database for the first time, as reproduced in Annex V to this document and submit comments to the Office of the Union by December 31, 2020;

(f) note that the “ISTA List of Stabilized Plant Names” with relevant UPOV codes was published on January 2020;

(g) note that the TC and the CAJ, at their sessions in 2019, approved the revision of the “Program for improvements to the PLUTO database” to reflect the change of the acceptable character set to accept accents and special characters in denominations in the PLUTO database (ISO/IEC Standard 8859 1: 1998); and

(h) note the summary of data contributions from members of the Union to the PLUTO database from 2016 to 2019, as presented in the Annex VI to this document.

The TWA and TWV are invited to consider amending the UPOV codes for *Beta vulgaris*, as set out in Annex II to this document.

The TWF is invited to consider amending the UPOV codes for *Citrus*, as set out in Annex III to this document.

The following abbreviations are used in this document:

CAJ: Administrative and Legal Committee

GRIN: Germplasm Resources Information Network

ISTA: International Seed Testing Association

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

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

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ANNEX III Inconsistences between UPOV codes and GRIN for *Citrus:* Current situation and proposed UPOV code amendments

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# 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[[1]](#footnote-2).

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 System

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>).

## UPOV code developments

In 2019, 208 new UPOV codes were created. The total number of UPOV codes in the GENIE database as of December 31, 2019 was 9,049.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Year | | | | | | | | | |
|  | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
| New UPOV codes | 114 | 173 | 212 | 209 | 577 | 188 | 173 | 440 | 242 | 208 |
| Amendments | 6 | 12 | 5 | 47\* | 37 | 11 | 16 | 1 | 5 | 0 |
| Total UPOV Codes | 6,683 | 6,851 | 7,061 | 7,251 | 7,808 | 7,992 | 8,149 | 8,589 | 8,844 | 9,049 |

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

The TWPs are invited to note that 208 new UPOV codes were created in 2019 and a total of 9,049 UPOV codes are included in the GENIE database.

## Exceptions to UPOV codes in the “Guide to the UPOV Code System”

### Brassica oleracea and Zea mays

The background to this matter is provided in document TWP/3/4 “UPOV information databases”, paragraphs 13 to 16 and paragraphs 29 to 33. Specific proposals for updating the UPOV codes for *Brassica* *oleracea* and *Zea mays* are presented in Annex I to this document.

The Technical Committee (TC), at its fifty-fifth session, held in Geneva, on October 28 and 29, 2019, considered 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* (see document TC/55/25 “Report”, paragraphs 207 to 210).

The TC recalled that the main purpose of the UPOV Code System was to overcome the problem of synonyms for plant taxa and should be based on taxonomic criteria, also bearing in mind that the UPOV Code System was used by other international organizations, such as ISTA.

The TC agreed that the exceptions proposed to the “Guide to the UPOV Code System” diverged from the Germplasm Resources Information Network (GRIN). The TC agreed that UPOV Codes should continue following GRIN taxonomy as far as possible.

The TC agreed to postpone the amendment to the “Guide to the UPOV Code System” and to explore alternative solutions to enable UPOV Codes to provide useful information on variety groups or types for DUS testing purposes. The TC agreed to invite the Office of the Union to prepare a document with proposals, for consideration at its fifty-sixth session.

The Office of the Union contacted members of the Union that expressed a need for solutions to enable UPOV Codes to provide useful information on variety groups or types for DUS testing purposes, to clarify their requirements. That process is continuing but has not yet provided sufficient clarity to enable the Office of the Union to propose alternative solutions to enable UPOV Codes to provide useful information on variety groups or types for DUS testing purposes.

From consultations with members of the Union and related discussions, it is anticipated that alternative solutions should include consideration of the following elements:

(a) group/type or other information for DUS purposes);

(b) analysis of variety denominations according to variety denomination class;

(c) use of UPOV code in other databases relevant for UPOV members

(d) use of UPOV code by other relevant organizations

The solutions would also need to be developed in a way that would enable relevant information to be included in UPOV tools, notably UPOV PRISMA, PLUTO database GENIE database, Test Guidelines and the Web-based TG Template.

The TWPs are invited to note

(a) that the TC, at its fifty-fifth session, agreed to postpone the amendment to the “Guide to the UPOV Code System” and to explore alternative solutions to enable UPOV Codes to provide useful information on variety groups or types for DUS testing purposes and to invite the Office of the Union to prepare a document with proposals, for consideration at its fifty‑sixth session; and

(b) the developments concerning alternative solutions to enable UPOV Codes to provide useful information on variety groups or types for DUS testing purposes.

## New proposals for updating UPOV codes

### UPOV codes for Beta vulgaris

The Office of the Union was informed of the inconsistency between GENIE and GRIN with regard to the botanical names of *Beta vulgaris* L. subsp. *vulgaris*.

Annex II to this document provides the number of entries in the PLUTO database for *Beta vulgaris*L. subsp. *vulgaris* and its synonyms, as currently provided in the GENIE database. A proposal for updating UPOV codes in line with the taxa in GRIN is provided in Annex II to this document. All previously recognized taxonomical ranks lower than subspecies are added as synonyms to *Beta vulgaris*L. subsp. *vulgaris*.

*The TWA and TWV are invited to consider amending the UPOV codes for Beta vulgaris, as set out in Annex II to this document.*

### UPOV codes for Citrus

The Office of the Union was informed of the inconsistency between GENIE and GRIN with regard to the botanical names *Citrus*.

Annex III to this document provides the number of entries in the PLUTO database for *Citrus* and its current synonyms, as provided in the GENIE database. Annex III also presents a proposal for updating UPOV codes in line with the taxa in GRIN.

The TWF is invited to consider amending the UPOV codes for Citrus in line with GRIN, as set out in Annex III to this document.

The TWF is invited to consider amending the UPOV codes for Citrus, as set out in Annex III to this document.

## UPOV code amendments agreed by the TC at its fifty-fifth session

The background to this matter is provided in document TWP/3/4 “UPOV information databases”, paragraphs 40 to 76.

The TC, at its fifty-fifth session, considered proposals to amend UPOV Codes concerning the following genera and species, as reproduced in Annex IV to this document (see document TC/55/25 “Report”, paragraph 211):

* *Ascocentrum* and *Neofinetia*, hybrids between *Ascocentrum* and *Neofinetia* and *Neofinetia falcata*
* *Citrus limettioides*
* *Digitalis*, *Isoplexis* and hybrids between *Digitalis* and *Isoplexis*
* inter-generic hybrids between *Echeveria* and *Sedum*
* *Haworthia* species
* hybrids between *Helleborus foetidus* and *Helleborus niger*
* *Homalocladium* species
* *Lavandula* ×*heterophylla*
* *Lobivia* and *Echinopsis chamaecereus*
* *Mahonia* species
* *Neotyphodium lolii*
* *Platostoma* and *Platostoma calcaratum*
* *Senecio* species
* *Wasabia* species

*Implementation of UPOV code amendments*

On January 13, 2020, the Office of the Union issued Circular E-19/213 to the designated persons of the members of the Union in the Administrative and Legal Committee (CAJ), TC, TWPs and contributors to the Plant Variety Database (PLUTO), informing that the above UPOV code amendments would take effect on April 1, 2020, and requesting PLUTO contributors to use the amended UPOV codes when submitting their plant variety data to the PLUTO database.

The TWPs are invited to note that the TC, at its fifty-fifth session, agreed to amend the UPOV codes for the genera and species set out in Annex IV to this document.

## 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 prepares tables of UPOV code additions and amendments, for checking by the relevant authorities, for each of the Technical Working Party (TWP) sessions in 2020.

The Excel files in Annex V to this document provide information on new UPOV codes added to the GENIE database and UPOV code amendments that have not yet been checked by the relevant authorities, as follows:

“Part A, ‘UPOV codes amendments to be checked’:

for each change, the old entry is highlighted in the row in red and the changes to the entry are found in the line immediately below that highlighted row (they have the same number in the first column). All Technical Working Parties and Authority(ies) are requested to check the amendments whether the amendments follow UPOV code system, reflects authentic botanical names and/or common names (see “Guide to the UPOV Code System” http://www.upov.int/export/sites/upov/genie/en/pdf/upov\_code\_system.pdf).

“Part B ‘New UPOV codes or new information’:

contains the new UPOV codes or new information added for existing UPOV codes. Highlighting in grey indicates that the UPOV code or name has not been changed. In this spreadsheet, the column headers highlighted in yellow indicate the relevant Technical Working Party (TWP) and Authority(ies) of interest which are requested to check the correctness of the information.”

“Part C ‘Crop type(s) of UPOV codes used in the PLUTO database for the first time’:

contains the new crop type allocation or amended allocation for new and existing UPOV codes. In this spreadsheet, the column headers highlighted in yellow indicate the relevant crop type(s) which are requested to check the correctness of the information.”

Annex V to this document contain parts A “UPOV codes amendments to be checked”, B “New UPOV codes or new information”, and C “Crop type(s) of UPOV codes used in the PLUTO database for the first time”. The Excel format files are available on the TWV/54, TWO/52, TWA/49, TWF/51 and TWC/38 websites.

The TWPs are 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 V to this document and submit comments to the Office of the Union by December 31, 2020.

## ISTA Nomenclature Committee

On June 30, 2019, the Office of the Union received a request from the International Seed Testing Association (ISTA) Nomenclature Committee to provide UPOV codes for all botanical names listed in the “ISTA List of Stabilized Plant Names”. On October 3, 2019, the Office of the Union provided the list of UPOV codes covering all botanical names in the “ISTA List of Stabilized Plant Names”. On January 2020, ISTA published the Seventh Edition of the “ISTA List of Stabilized Plant Names” with relevant UPOV codes (available at: <https://www.seedtest.org/upload/cms/user/ISTAListofStabilizedPlantNamesed.75.pdf>).

The TWPs are invited to note that the “ISTA List of Stabilized Plant Names” with relevant UPOV codes was published on January 2020.

PLUTO DATABASE

Program for improvements to the PLUTO database

The TC, at its fifty-fifth session, and the CAJ, at its seventy-sixth session, held in Geneva on October 30, 2019, agreed with the proposal to revise 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 follows (see documents TC/55/25 “Report”, paragraph 214, and CAJ/76/9 “Report”, paragraph 46):

“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.”

The TWPs are invited to note that the TC and the CAJ, at their sessions in 2019, approved the revision of the “Program for improvements to the PLUTO database” to reflect the change of the acceptable character set to accept accents and special characters in denominations in the PLUTO database (ISO/IEC Standard 8859 1: 1998);

## Summary of contributions to the PLUTO database from 2016 to 2019

Annex VI to this document provides a summary of data contributions from members of the Union to the PLUTO database from 2016 to 2019.

The TWPs are invited to note the summary of data contributions from members of the Union to the PLUTO database from 2016 to 2019, as presented in the Annex VI to this document.

[Annexes follow]

EXTRACT FROM DOCUMENT TWP/2/4 “UPOV INFORMATION DATABASES”

(See document TWP/2/4, paragraphs 20 to 22 and 30 to 36)

*UPOV code “ZEAAA\_MAY\_SAC”, “ZEAAA\_MAY\_EVE” and “ZEAAA\_MAY\_MIC”*

Background

20 The TWA, at its forty-sixth session, held in Hanover, Germany, from June 19 to 23, 2017, agreed that the UPOV Code ZEAAA\_MAY\_SAC should be combined with the UPOV Code ZEAAA\_MAY\_MAY under a single UPOV Code ZEAAA\_MAY following the reclassification of Sweet Corn (*Zea mays* var. *saccharata*) as a subspecies of *Zea mays* subsp. *mays*.

21 The current entries in the GENIE database for “*Zea mays* L.” and its subspecies, the taxa in the Germplasm Resources Information Network (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 |
| ZEAAA\_MAY | *Zea mays* L. | *Zea mays* L. | Corn; Maize | 118,048 |
| ZEAAA\_MAY\_SAC | *Zea mays* L. *saccharata* Koern. | *Zea mays* L. var. *saccharata* (Sturtev.) L. H. Bailey  (as a synonym of *Zea mays* L. subsp. *Mays* ) | Sweet Corn | 757 |
| ZEAAA\_MAY\_MAY | *Zea mays* L. subsp. *mays* | *Zea mays* L. subsp. *mays* | corn; maize; sweet corn  etc. | 803,853 |
| ZEAAA\_MAY\_EVE | *Zea mays* L. var. *everta* (Praecox) Sturt. | [*Zea mays* L. var. *everta* (Praecox) Sturt.  (as a synonym of *Zea mays* L. subsp. *Mays* ) ]  [not recognized in GRIN] | Popcorn | 56 |
| ZEAAA\_MAY\_MEX | *Zea mays* L. subsp. *mexicana* (Schrad.) H. H. Iltis | *Zea mays* L. subsp. *mexicana* (Schrad.) H. H. Iltis | Durango teosinte; Mexican teosinte; Rayana grass | 0 |
| ZEAAA\_MAY\_MIC | *Zea mays* L. convar. *microsperma* Koern. | [*Zea mays* L. convar. *microsperma* Koern.  (as a synonym of *Zea mays* L. subsp. *Mays* ) ]  [not recognized in GRIN] | Popcorn | 79 |

22 *Zea mays* L. and its subspecies, including *Zea mays* L. var. *saccharata*, are covered by the UPOV Test Guidelines for Maize (document TG/2/7).

Proposal

23 In accordance with the reclassification of *Zea mays* L. var. *saccharata* (sweet corn), *Zea mays* L. var. *everta* (Praecox) Sturt. and *Zea mays* L. convar. *microsperma* Koern (Popcorn) as synonyms of *Zea mays* L.subsp. *mays* in GRIN, the TWA might wish to consider deletion of the UPOV Codes ZEAAA\_MAY\_SAC, ZEAAA\_MAY\_EVE and ZEAAA\_MAY\_MIC. *Zea mays* L. var. *saccharata*, *Zea mays* L. var. *everta* (Praecox) Sturt. and *Zea mays* L. convar. *microsperma* Koern would be covered by the UPOV Code ZEAAA\_MAY\_MAY following the reclassification of *Zea mays* L. var. *saccharata* (sweet corn), *Zea mays* L. var. *everta* (Praecox) Sturt. and *Zea mays* L. convar. *microsperma* Koern (Popcorn) as synonyms of *Zea mays* L. subsp. *mays*, as follows:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Current | | | Proposal | | |
| UPOV code | Principal botanical name | Other botanical name(s) | UPOV code | Principal botanical name | Other botanical name(s) |
| ZEAAA\_MAY\_SAC | *Zea mays* L. *saccharata* Koern. | n.a. | [to delete] | n.a. | n.a. |
| ZEAAA\_MAY\_EVE | *Zea mays* L. var. *everta* (Praecox) Sturt. | n.a. | [to delete] | n.a. | n.a. |
| ZEAAA\_MAY\_MIC | *Zea mays* L. convar. *microsperma* Koern. | n.a. | [to delete] | n.a. | n.a. |
| 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. |

*Brassica oleracea*

Background

The Office of the Union was informed of the inconsistency between GENIE and GRIN with regard to the botanical names of *Brassica oleracea*.

The botanical names in GENIE are specified in the Section 2.3 of the “Guide to the UPOV Code System”, which is reproduced as follows:

“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 twospecies, 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* |
| **BRASS\_OLE\_GA** | **Brassica oleracea L. convar. acephala (DC.) Alef.** | **Kale** |
| **BRASS\_OLE\_GAM** | **Brassica oleracea L. convar. acephala (DC.) Alef. var. medullosa Thell.** | **Marrow-stem kale** |
| **BRASS\_OLE\_GAR** | **Brassica oleracea L. var. ramosa DC.** | **Catjang** |
| **BRASS\_OLE\_GAS** | **Brassica oleracea L. convar. acephala (DC.) Alef. var. sabellica L.** | **Curly kale** |
| **BRASS\_OLE\_GAV** | **Brassica oleracea L. convar. acephala (DC.) Alef. var. viridis L.** | **Fodder kale** |
| **BRASS\_OLE\_GB** | **Brassica oleracea L. convar. botrytis (L.) Alef.** |  |
| **BRASS\_OLE\_GBB** | **Brassica oleracea L. convar. botrytis (L.) Alef. var. botrytis** | **Cauliflower** |
| **BRASS\_OLE\_GBC** | **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\_GCA** | **Brassica oleracea L. convar. capitata (L.) Alef. var. capitata L. f. alba DC.** | **White cabbage** |
| **BRASS\_OLE\_GCR** | **Brassica oleracea L. convar. capitata (L.) Alef. var. capitata L. f. rubra (L.) Thell.** | **Red cabbage** |
| **BRASS\_OLE\_GCS** | **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** |

Appendix I to this Annex provides the current entries in the GENIE database for *Brassica oleracea* except hybrids, the taxa in GRIN and the numbers of entries in the PLUTO database.

There are differences between botanical names in GRIN and those in GENIE, which suggest that the groupings within *Brassica oleracea* group are not recognized within GRIN classification:

*Brassica oleracea* L. convar. *capitata* (L.) Alef. var. *alba* DC. (BRASS\_OLE\_GCA) and *Brassica oleracea* L. convar. *capitata* (L.) Alef. var. *rubra* (L.) Thell. (BRASS\_OLE\_GCR) are not recognized in GRIN.

Proposal

The TWV might wish to consider amending the botanical names of *Brassica oleracea* in accordance with GRIN, with the consequent changes to the UPOV codes in relation to groups, as provided in Appendix II to this Annex, and the proposal on the revision of the Section 2.3 of the “Guide to the UPOV Code System”, as provided in Appendix III to this document.

[…]

[Appendices follow]

CURRENT SITUATION FOR BRASSICA OLERACEA

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| UPOV code | Principal botanical name in GENIE | Botanical name(s) in GRIN | Common name(s) in GENIE | Numbers of Entries in PLUTO |
| BRASS\_OLE | *Brassica oleracea* L. | *Brassica oleracea* L. | n.a. | 3,794 |
| BRASS\_OLE\_GA | *Brassica oleracea* L. *convar. acephala* (DC.) Alef. | n.a. | Kale | 156 |
| BRASS\_OLE\_GAM | *Brassica oleracea* L. *convar. acephala* (DC.) Alef. *var. medullosa* Thell. | *Brassica oleracea* L. var. *medullosa* Thell. | Marrow-stem Kale | 28 |
| BRASS\_OLE\_GAR | *Brassica oleracea* L.var. *ramosa* DC. | *Brassica oleracea* L. var. *ramosa* DC. | branching bush kale; branching cabbage; perennial kale; perpetual kale; thousand-head kale | 0 |
| BRASS\_OLE\_GAS | *Brassica oleracea* L. *convar. acephala (DC.)* Alef. var. *sabellica* L. | *Brassica oleracea* L.var. *sabellica* L. | Borecole; Curly Kale; Dwarf Siberian kale; Kitchen kale; Scotch kale | 415 |
| BRASS\_OLE\_GAV | *Brassica oleracea* L. *convar. acephala* (DC.) Alef. var. *viridis* L. | *Brassica oleracea* L.var. *viridis* L. | Collards; Cow cabbage; Fodder Kale; Kale; Spring-heading cabbage; Tall kale; Tree kale | 160 |
| BRASS\_OLE\_GB | *Brassica oleracea* L. convar. *botrytis* (L.) Alef. | n.a. | n.a. | 298 |
| BRASS\_OLE\_GBB | *Brassica oleracea* L. *convar. botrytis* (L.) Alef. var. *botrytis* | *Brassica oleracea* L. var. *botrytis* L. | Cauliflower | 3,522 |
| BRASS\_OLE\_GBC | *Brassica oleracea* L. var. *italica* Plenck | *Brassica oleracea* L.var. *italic* Plenck | Calabrese; Cape broccoli; Sprouting Broccoli; Winter broccoli; asparagus broccoli; broccoli; heading broccoli; purple cauliflower | 1,043 |
| BRASS\_OLE\_GC | *Brassica oleracea* L. convar. *capitata* (L.) Alef. | *Brassica oleracea* L.var. *capitata* L. | Cabbage | 292 |
| BRASS\_OLE\_GCA | *Brassica oleracea L. convar. capitata* (L.) Alef. var. *alba* DC. | n.a. | White Cabbage | 3,747 |
| BRASS\_OLE\_GCR | *Brassica oleracea* L. *convar. capitata* (L.) Alef.var. *rubra* (L.) Thell. | n.a. | Red Cabbage | 619 |
| BRASS\_OLE\_GCS | *Brassica oleracea* L.convar. *capitata* (L.) Alef. var. *sabauda* L. | *Brassica oleracea* L.var. *sabauda* L. | Savoy Cabbage | 533 |
| BRASS\_OLE\_GGM | *Brassica oleracea* L.var. *gemmifera* Zenker | *Brassica oleracea* L.var. *gemmifera* DC. | Brussels Sprouts | 950 |
| BRASS\_OLE\_GGO | *Brassica oleracea* L. var. *gongylodes* L. | *Brassica oleracea* L.var. *gongylodes* L. | Kohlrabi; Stem turnip | 543 |
| BRASS\_OLE\_ALB | *Brassica oleracea* L.var. *alboglabra* (L. H. Bailey) Musil | *Brassica oleracea* L. var. *alboglabra* (L. H. Bailey)Musil | Chinese broccoli; Chinese kale | 0 |
| BRASS\_OLE\_COS | *Brassica oleracea* L.var. *costata* DC. | *Brassica oleracea* L. var. *costata* DC. | Bedford cabbage; Braganza; Portugese cole; Portuguese kale; Seakale cabbage; Tronchuda cabbage; Tronchuda kale | 16 |

[Appendix II to Annex I follows]

PROPOSAL ON CHANGES TO THE UPOV CODES FOR BRASSICA OLERACEA

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Current | | | Proposal | | |
| UPOV code | Principal botanical name | Other botanical name(s) | UPOV code | Principal botanical name | Other botanical name(s) |
| 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. |
| BRASS\_OLE\_GA | *Brassica oleracea* L. *convar. acephala* (DC.) Alef. | n.a. | [to delete] | n.a. | n.a. |
| 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. |
| 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. |
| 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. |
| BRASS\_OLE\_GB | *Brassica oleracea* L. convar. *botrytis* (L.) Alef. | n.a. | [to delete] | n.a. | n.a. |
| 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* |
| BRASS\_OLE\_GC | *Brassica oleracea* L. convar. *capitata* (L.) Alef. | *Brassica oleracea* L. var. *capitata* L. | BRASS\_OLE\_GCC | *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 |
| 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. |
| 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. |
| 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]

PROPOSAL ON THE REVISION OF THE SECTION 2.3 OF 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 the text of the “Guide to the UPOV Code System”.

2.3 Grouping classification: *~~Brassica~~* ~~and~~ *Beta*

A grouping classification is used for UPOV codes within *Beta vulgaris*~~and part of~~ *~~Brassica oleracea~~*. To indicate that a grouping classification is being used for ~~those two~~*Beta vulgaris* 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~~** |

[Annex II follows]

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Currrent | | | | | Proposal | | |
| 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\_**G**VA | 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\_**G**VC | 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\_**G**VF | 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\_**G**VS | Beta vulgaris L. ssp. vulgaris var. saccharifera Alef. | Beta vulgaris L. ssp. vulgaris var. altissima Doell |

Inconsistencies between UPOV codes and GRIN for *beta vulgaris* subsp. *vulgaris*

Current situation and proposed UPOV code amendments

[Annex III follows]

Inconsistencies between UPOV codes and GRIN for *citrus*

Current situation and proposed UPOV code amendments

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Currrent | | | | | Proposal | | |
| 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. |

[Annex IV follows]

UPOV code amendments agreed by the TC at its fifty-fifth session

The following amendments to UPOV codes were agreed by the TC, at its fifty-fifth session:

UPOV code for Citrus limettioides

The Office of the Union was informed of a duplication of UPOV codes for *Citrus limettioides*. The UPOV Code CITRU\_LIT was deleted.

UPOV code for inter-generic hybrids between Echeveria and Sedum

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

The TC agreed 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 | | | Agreed amendments | | |
| --- | --- | --- | --- | --- | --- |
| 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. |

UPOV codes for Platostoma and Platostoma calcaratum

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

The TC agreed 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 | | | Agreed amendments | | |
| 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 |

### 

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

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

The TC agreed 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 | | | Agreed amendments | | |
| 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. |

### 

UPOV codes for Lobivia and Echinopsis chamaecereus

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

In accordance with the reclassification of *Lobivia* to *Echinopsis*, the TC agreed 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 | | | Agreed amendments | | |
| --- | --- | --- | --- | --- | --- |
| 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](https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?id=464906)* (Speg.) Britton & Rose; [*Lobivia silvestrii*](https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?id=464905) (Speg.) G. D. Rowley |

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

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

In accordance with the reclassification of *Ascocentrum* and *Neofinetia* to *Vanda*, the TC agreed to delete the UPOV codes ASCOC, ASNEO, NEOFI and NEOFI\_FAL. The *Ascocentrum* and *Neofinetia* generawould be covered as synonyms of *Vanda* genus under the UPOV Code VANDA. *Neofinetia falcata* would be coveredas a synonym of *Vanda falcata* under a new UPOV codeVANDA\_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.](https://npgsweb.ars-grin.gov/gringlobal/taxonomygenus.aspx?id=1032); *[Neofinetia](https://npgsweb.ars-grin.gov/gringlobal/taxonomygenus.aspx?id=8092)* [Hu](https://npgsweb.ars-grin.gov/gringlobal/taxonomygenus.aspx?id=8092);  *Ascocentrum x Neofinetia;*  *Ascofinetia;*  *Ascocentropsis* Senghas & Schildh.;  [*Christensonia* Haager](https://npgsweb.ars-grin.gov/gringlobal/taxonomygenus.aspx?id=29563);  [*Eparmatostigma* Garay](https://npgsweb.ars-grin.gov/gringlobal/taxonomygenus.aspx?id=4294);  [*Euanthe* Schltr.](https://npgsweb.ars-grin.gov/gringlobal/taxonomygenus.aspx?id=14507);  [*Seidenfadenia* Garay](https://npgsweb.ars-grin.gov/gringlobal/taxonomygenus.aspx?id=11038);  [*Trudelia* Garay](https://npgsweb.ars-grin.gov/gringlobal/taxonomygenus.aspx?id=16883) |
| ASCOC | *Ascocentrum* Schltr.ex J. J. Sm. | n.a. |
| NEOFI | *Neofinetia* Hu | n.a. |
| ASNEO | *Ascocentrum x Neofinetia* | *Ascofinetia* |
| NEOFI\_FAL | *Neofinetia falcata* (Thunb.) Hu | n.a. | VANDA\_FAL | *Vanda falcata* (Thunb.) Beer | *Neofinetia falcata* (Thunb.) Hu; *Orchis falcata* Thunb. |

UPOV codes for Haworthia species

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

In accordance with the reclassification of certain *Haworthia* species to *Haworthiopsis* species, the TC agreed 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 codeHAWOR\_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*](https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?id=2600)Salm-Dyck; [*Haworthia margaritifera var. semimargaritifera*](https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?id=18357)(Salm-Dyck) Baker; [*Haworthia papillosa var. semipapillosa*](https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?id=18366)Haw.; [*Haworthia semiglabrata*](https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?id=18407)Haw*.* |
| HAWOR\_MAR | *Haworthia margaritifera* (L.) Haw. | n.a. |

UPOV codes for Mahonia and its species

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

In accordance with the reclassification of *Mahonia* to *Berberis*, the TC agreed 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.](https://npgsweb.ars-grin.gov/gringlobal/taxonomygenus.aspx?id=15277);  [*Odostemon* Raf.](https://npgsweb.ars-grin.gov/gringlobal/taxonomygenus.aspx?id=17121) |
| MAHON | *Mahonia* Nutt. | n.a. |
| MAHON\_ACA | *Mahonia acanthifolia* G. Don | n.a. | BERBE \_NAP | *Berberis napaulensis* (DC.) Spreng. | [*Mahonia acanthifolia*](https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?id=23156) G. Don |
| MAHON\_AQU | *Mahonia aquifolium* (Pursh) Nutt. | n.a. | BERBE \_AQU | *Berberis aquifolium* Pursh | [*Mahonia aquifolium*](https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?id=23157) (Pursh) Nutt.;  [*Berberis diversifolia*](https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?id=6852) (Sweet) Steud.; [*Mahonia aquifolium subsp. aquifolium*](https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?id=447854) (Pursh) Nutt.; [*Mahonia diversifolia*](https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?id=23158) Sweet |
| MAHON\_BEA | *Mahonia bealei* (Fortune) Carrière | *Mahonia bealei* (Fort.) Carr | BERBE \_BEA | *Berberis bealei* Fortune | [*Mahonia bealei*](https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?id=105071) (Fortune) Carrière;[*Berberis japonica* *var. bealei*](https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?id=6890) (Fortune) Skeels; |
| MAHON\_JAP | *Mahonia japonica* (Thunb.) DC. | n.a. | BERBE \_JAP | *Berberis japonica* (Thunb.) Spreng. | [*Mahonia japonica*](https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?id=23162) (Thunb.) DC.;  *Ilex japonica* Thunb. |
| MAHON\_LOM | *Mahonia lomariifolia* Takeda | n.a. | BERBE \_OIW | *Berberis oiwakensis* (Hayata) Laferr. | [*Mahonia lomariifolia*](https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?id=23164)Takeda; [*Berberis lomariifolia*](https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?id=449160)(Takeda) Laferr.; [*Mahonia oiwakensis*](https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?id=468751) 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 |

UPOV codes for Homalocladium and its species

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

In accordance with the reclassification of *Homalocladium* to *Muehlenbeckia*, the TC agreed 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. |

UPOV codes for Wasabia genus and its species

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

In accordance with the reclassification of *Wasabia* to *Eutrema*, the TC agreed 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.;  *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 |

UPOV code for Neotyphodium lolii

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

In accordance with the reclassification of *Neotyphodium lolii to Epichloe festucae*, the TC agreed 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 |

UPOV codes for Senecio species

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

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 LʼHér.) Bolle × *Pericallis lanata* (LʼHér.) 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 LʼHér.) 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* (LʼHér.) 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 |

In accordance with the reclassification of certain *Senecio* species *to Brachyglottis, Curio, Jacobaea, Pericallis and Tephroseris* species, the TC agreed to delete 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* |
| 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 LʼHér.) Bolle | *Senecio cruentus* (Masson ex L'Hér.) DC. ; *Cineraria cruenta* Masson ex LʼHér. |
| 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* (LʼHér.) B. Nord. | *Senecio heritieri* DC. ; *Cineraria lanata* LʼHér. |
| 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 |

UPOV code for hybrid between Helleborus foetidus and Helleborus niger

The Office of the Union was informed of a duplication of UPOV codes for hybrid between *Helleborus foetidus* and *Helleborus niger*.

The current entries in the GENIE database for hybrid between *Helleborus foetidus* and *H. niger*, 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 |
| HELLE\_FNI | *Helleborus foetidus* L. x *H. niger* L. | *Helleborus ×sahinii* Grimshaw  (with a comment  “= *Helleborus niger* × *H. foetidus*”) | n.a. | 1 |
| HELLE\_SAH | *Helleborus ×sahinii* Grimshaw | *Helleborus ×sahinii* Grimshaw | n.a. | 1 |

The TC agreed to delete the UPOV Code HELLE\_FNI.

UPOV code for Lavandula ×heterophylla

The Office of the Union was informed of a duplication of UPOV codes for *Lavandula ×heterophylla*.

The current entries in the GENIE database for *Lavandula ×heterophylla*, 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 |
| LAVAN\_HET | *Lavandula ×heterophylla* Viv. | *Lavandula ×heterophylla* Viv. | n.a. | 3 |
| LAVAN\_XAL | *Lavandula ×allardii* | *Lavandula ×heterophylla* Viv.  (synonym: *Lavandula* ×*allardii* Hy) | n.a. | 3 |

The TC agreed to delete the UPOV Code LAVAN\_XAL. *Lavandula ×allardii* Hy would be covered by the UPOV Code LAVAN\_HET, as follows:

| Current | | | Proposal | | |
| --- | --- | --- | --- | --- | --- |
| UPOV code | Principal botanical name | Other botanical name(s) | UPOV code | Principal botanical name | Other botanical name(s) |
| LAVAN\_XAL | *Lavandula ×allardii* | n.a. | [to delete] | n.a. | n.a. |
| LAVAN\_HET | *Lavandula ×heterophylla* Viv. | n.a. | LAVAN\_HET | *Lavandula ×heterophylla* Viv. | *Lavandula ×allardii* |

[Annex V follows]

[See Excel files]

[Annex VI follows]

REPORT ON DATA CONTRIBUTED TO THE PLANT VARIETY DATABASE BY MEMBERS OF THE UNION AND OTHER CONTRIBUTORS AND ASSISTANCE FOR DATA CONTRIBUTION

| Contributor | Number of applications for PBR in 2018 | Number of new data submissions to PLUTO in 2015 | Number of new data submissions to PLUTO in 2016 | Number of new data submissions to PLUTO in 2017 | Number of new data submissions to PLUTO in 2018 | Number of new data submissions to PLUTO in 2019 |
| --- | --- | --- | --- | --- | --- | --- |
| African Intellectual Property Organization | 4 (2017) | 0 | 0 | 0 | 0 | 0 |
| Albania | n.a. | 1 | 1 | 0 | 0 | 0 |
| Argentina | 329 | 0 | 1 | 0 | 0 | 2 |
| Australia | 384 | 5 | 7 | 5 | 22 | 20 |
| [[2]](#footnote-3)\*Austria | 0 | 3 | 4 | 4 | 5 | 5 |
| Azerbaijan | 19 (2014) | 0 | 0 | 0 | 0 | 0 |
| Belarus | 42 | 0 | 1 | 0 | 0 | 0 |
| \*Belgium | 1 | 6 | 5 | 3 | 5 | 6 |
| Bolivia (Plurinational State of) | 5 | 0 | 1 | 1 | 0 | 0 |
| Bosnia and Herzegovina | n.a. | n.a. | n.a. | 0 | 0 | 0 |
| Brazil | 327 | 3 | 0 | 3 | 5 | 11 |
| \*Bulgaria | 18 | 12 | 6 | 3 | 4 | 10 |
| Canada | 330 | 7 | 11 | 11 | 10 | 12 |
| Chile | 99 | 4 | 6 | 5 | 7 | 6 |
| China | 5,760 | 2 | 1 | 1 | 0 | 1 |
| Colombia | 168 | 0 | 0 | 2 | 0 | 1 |
| Costa Rica | 4 | 1 | 3 | 2 | 1 | 5 |
| \*Croatia | 9 | 3 | 2 | 2 | 2 | 2 |
| \*Czech Republic | 70 | 3 | 6 | 9 | 6 | 6 |
| \*Denmark | 7 | 12 | 11 | 10 | 7 | 11 |
| Dominican Republic | 5 (2009) | 0 | 0 | 0 | 0 | 0 |
| Ecuador | 85 | 0 | 0 | 1 | 1 | 0 |
| Egypt | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| \*Estonia | 5 | 9 | 3 | 3 | 9 | 6 |
| \*European Union | 3,554 | 10 | 13 | 7 | 11 | 8 |
| \*Finland | 7 | 2 | 2 | 2 | 3 | 1 |
| \*France | 98 | 13 | 11 | 8 | 8 | 12 |
| Georgia | 1 | 0 | 2 | 0 | 2 | 0 |
| \*Germany | 57 | 11 | 12 | 8 | 9 | 11 |
| \*Hungary | 6 | 16 | 19 | 14 | 11 | 16 |
| \*Iceland | n.a. | 0 | 0 | 0 | 0 | 0 |
| \*Ireland | 0 (2012) | 2 | 2 | 1 | 2 | 2 |
| Israel | 68 | 1 | 1 | 1 | 0 | 8 |
| \*Italy | 3 | 8 | 6 | 6 | 3 | 4 |
| Japan | 880 | 4 | 1 | 2 | 3 | 4 |
| Jordan | 3 (2016) | 0 | 1 | 0 | 0 | 0 |
| Kenya | 0 | 0 | 1 | 0 | 0 | 0 |
| Kyrgyzstan | 1 | 0 | 0 | 0 | 0 | 0 |
| \*Latvia | 16 | 1 | 1 | 2 | 2 | 1 |
| \*Lithuania | 7 | 3 | 4 | 4 | 3 | 4 |
| Mexico | 308 | 1 | 3 | 3 | 4 | 2 |
| Montenegro | n.a. | 0 | 0 | 0 | 0 | 0 |
| Morocco | 109 | 2 | 0 | 0 | 0 | 0 |
| \*Netherlands | 792 | 10 | 11 | 8 | 9 | 11 |
| New Zealand | 112 | 6 | 5 | 6 | 6 | 6 |
| Nicaragua | 0 | 0 | 0 | 0 | 0 | 0 |
| North Macedonia | n.a. | 0 | 0 | 0 | 0 | 0 |
| \*Norway | 14 | 4 | 3 | 4 | 7 | 6 |
| Oman | n.a. | 0 | 0 | 2 | 0 | 0 |
| Panama | 0 | 0 | 1 | 1 | 0 | 0 |
| Paraguay | 27 | 1 | 1 | 0 | 1 | 0 |
| Peru | 52 | 0 | 0 | 1 | 1 | 1 |
| \*Poland | 103 | 3 | 5 | 7 | 3 | 3 |
| \*Portugal | 0 | 0 | 2 | 1 | 2 | 1 |
| Republic of Korea | 765 | 0 | 1 | 0 | 1 | 4 |
| Republic of Moldova | 37 | 3 | 3 | 1 | 2 | 7 |
| \*Romania | 32 | 4 | 4 | 4 | 4 | 5 |
| Russian Federation | 780 | 5 | 5 | 5 | 4 | 3 |
| Serbia | 30 | 3 | 4 | 2 | 4 | 1 |
| Singapore | 8 | 0 | 0 | 0 | 0 | 0 |
| \*Slovakia | 8 | 4 | 5 | 6 | 4 | 4 |
| \*Slovenia | 0 (2017) | 5 | 5 | 3 | 4 | 4 |
| South Africa | 286 | 0 | 1 | 2 | 2 | 5 |
| \*Spain | 113 | 5 | 5 | 5 | 4 | 4 |
| \*Sweden | 2 | 11 | 12 | 11 | 9 | 9 |
| \*Switzerland | 57 | 6 | 5 | 6 | 3 | 6 |
| Trinidad and Tobago | n.a. | 0 | 0 | 0 | 0 | 0 |
| Tunisia | 27 | 0 | 0 | 0 | 0 | 0 |
| \*Turkey | 178 | 1 | 3 | 0 | 2 | 1 |
| Ukraine | 1,575 | 0 | 0 | 0 | 3 | 11 |
| \*United Kingdom | 328 | 11 | 13 | 10 | 12 | 10 |
| United Republic of Tanzania | 5 | 0 | 0 | 0 | 0 | 0 |
| United States of America | 1,609 | 17 | 16 | 12 | 12 | 16 |
| Uruguay | 48 | 1 | 0 | 0 | 0 | 0 |
| Uzbekistan | 43 | 0 | 0 | 0 | 1 | 0 |
| Viet Nam | 242 | 0 | 0 | 0 | 0 | 0 |
| OECD | - | 0 | 2 | 2 | 2 | 2 |

[End of Annex VI and of document]

1. 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-2)
2. \* Data provided via the CPVO. [↑](#footnote-ref-3)