

Administrative and Legal Committee

CAJ/78/7

**Seventy-Eighth Session
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PLUTO PLANT VARIETY DATABASE

Document prepared by the Office of the Union

Disclaimer: this document does not represent UPOV policies or guidance

EXECUTIVE SUMMARY

1. The purpose of this document is to report on developments concerning the PLUTO plant variety database (PLUTO database).
2. The CAJ is invited to note:
 - (a) the summary of contributions to the PLUTO database from 2016 to 2021, as set out in Annex II to this document;
 - (b) the information concerning the development of the new version of the PLUTO database;
 - (c) the launch of the new version of the PLUTO database on October 11, 2021; and
 - (d) that a demonstration of the new PLUTO database design and features, the new arrangements for contributing data, and the PLUTO web pages will be made at the seventy-eighth session of the CAJ.
3. The structure of this document is as follows:

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BACKGROUND

New version of PLUTO

4. The Council, at its fifty-third ordinary session, held in Geneva on November 1, 2019 (see document C/53/15, paragraph 23), decided to discontinue the arrangement between UPOV and WIPO concerning the UPOV Plant Variety Database (UPOV-WIPO arrangement¹) as soon as the knowledge transfer and rationalization of the PLUTO database data management had been completed to the satisfaction of the Office of the Union. The Council further decided to approve the following approach for the PLUTO database from November 2020:

- i) free option: the PLUTO database with a search function would be free to all users. Search results would be limited to an on-screen display of a single page of results. There would be no facility to download search results or data from the PLUTO database;
- ii) premium option: users paying a fee would have access to all PLUTO database features and would be able to download data without restrictions. The fee would be CHF 750 per annum;
- iii) members of the Union and data contributors: access to all PLUTO database “premium” features would be free to all members of the Union and data contributors (i.e. OECD); and
- iv) access to PLUTO data could also be granted in cases approved by the Consultative Committee, in a similar way to the assistance provided by the Office of the Union to the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA).

NEW VERSION OF PLUTO

Finalizing the new version

5. On June 30, 2020, a webinar was held to provide an overview of changes to the PLUTO database and to provide users with an opportunity to provide feedback on the proposed design and new features. The webinar was attended by 185 participants. Feedback from participants was arranged in the form of live polls during the webinar, a question and answer session at the end of the webinar and the possibility to send questions by e-mail after the webinar. A video recording of the webinar without the live polls and question and answer session was made available on UPOV website.

6. On the basis of the feedback received during and after the webinar, it was concluded that a follow-up survey would provide a valuable opportunity to enhance the understanding of users’ needs. An invitation to participate in a survey was sent to all UPOV bodies, PLUTO users and participants in the webinar.

7. On the basis of the webinar and survey, the new version of the PLUTO database was finalized.

8. A test campaign took place from August 30, 2021 to September 10, 2021, for PVP offices and other users to test the new design and features of the database. Feedback provided throughout the testing phase enabled the final version to be refined.

¹ At its seventy-sixth session, held in Geneva on October 29, 2008, the Consultative Committee, approved an arrangement between UPOV and the World Intellectual Property Organization (WIPO) (UPOV-WIPO arrangement), concerning the UPOV Plant Variety Database, as follows:

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

Data contribution

9. The Program for improvements to the PLUTO database (“Program”) reflecting amendments agreed by the CAJ, as provided in Annex I to this document, explains the aim with regard to assistance to contributors:

“2. *Provision of assistance to contributors*

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

“2.2 In response to the needs identified by members of the Union and contributors to the PLUTO database in 2.1, the PLUTO database administrator will seek to develop solutions for each of the PLUTO database contributors.

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

10. On June 30, 2020, a webinar on changes to the PLUTO database for data contributors was held to explain the changes to be made to the submission process for contributing data to the PLUTO database and the checks on the quality of the uploaded data.

11. The quality of data has been improved through additional data quality checks in the new arrangements for contributing data to the PLUTO database. The processing of the existing data following the new procedure of data validation led to:

- 8,916 validated suggestions;
- detection of 636 duplicates; and
- creation of 18 new UPOV codes.

12. Annex II to this document provides a summary of the contributions to the PLUTO database from 2016 to 2021.

Launch of new version of PLUTO for users

13. On September 14, 2021, the Office of the Union issued Circular E-21/136 to PLUTO data contributors and UPOV Council representatives and alternates, explaining the timelines of the launch of new service and the plans for a series of webinars for contributors of data to PLUTO. In order to plan a smooth transition to the new version of PLUTO, contributors were requested not to submit new data until October 1, 2021.

14. A series of webinars for contributors of data to PLUTO (English, French and Spanish) were organized on September 28 and 30, 2021 to explain the new procedure for submitting data to PLUTO. The four webinars were attended by 19 participants. The webinars were recorded and video recordings are available at: <https://www.upov.int/pluto/en/help.html>. In addition, individual virtual meetings for contributors of data can be organized upon request to explain the new procedure for submitting the data to PLUTO. The new PLUTO contribution arrangements were introduced for contributors on September 27, 2021.

Launch of new PLUTO Services

15. On September 24, 2021, the Office of the Union issued Circular E-21/154 to all UPOV bodies and PLUTO users, announcing the launch of the new version of the PLUTO database. The Circular also invited users to join a series of webinars from October 5 to 6, 2021, to present the new design and features of the database.

16. The four webinars were attended by 89 participants. The webinars were recorded and are available at: <https://www.upov.int/pluto/en/help.html>.

17. The new version of the PLUTO database was launched on October 11, 2021, at the new URL <https://pluto.upov.int>.

18. In order to provide an opportunity for users to assess whether to use the Standard service or Premium service, the Premium service is available for free from October 11, 2021 (the launch of the new PLUTO) to November 5, 2021.

19. UPOV members and data contributors have free access to the Premium service where authorized by the Council representative of the UPOV member concerned. In order to arrange this free access, Circular E-21/114 was sent on July 26, 2021, to invite UPOV Council representative to designate eligible officials for the free Premium service.

20. Guidance for PLUTO contributors and users is available at: <https://www.upov.int/pluto>.

21. A demonstration of the new PLUTO database, the new arrangements for contributing data and the PLUTO web pages will be made at the seventy-eighth session of the CAJ.

22. *The CAJ is invited to note:*

(a) the summary of contributions to the PLUTO database from 2016 to 2021, as set out in Annex II to this document;

(b) the information concerning the development of the new version of the PLUTO database;

(c) the launch of the new version of the PLUTO database on October 11, 2021; and

(d) that a demonstration of the new PLUTO database design and features, the new arrangements for contributing data, and the PLUTO web pages will be made at the seventy-eighth session of the CAJ.

[Annexes follow]

PROGRAM FOR IMPROVEMENTS TO THE PLANT VARIETY DATABASE

*as approved by the Administrative and Legal Committee (CAJ),
at its fifty-ninth session, held in Geneva on April 2, 2009,
and amended by the CAJ at its sixty-fifth session, held in Geneva on March 21, 2012,
at its sixty-eighth session, held in Geneva on October 21, 2013, and,
at its seventy-sixth session, held in Geneva on October 30, 2019*

1. *Title of the Plant Variety Database*

The name of the Plant Variety Database is the “PLUTO database” (PLUTO = **PL**ant varieties in the **UPOV** system: **The Omnibus**).

2. *Provision of assistance to contributors*

2.1 The PLUTO database administrator² will continue to contact all members of the Union and contributors to the PLUTO database that do not provide data for the PLUTO database, do not provide data on a regular basis, or do not provide data with UPOV codes. In each case, they will be invited to explain the type of assistance that would enable them to provide regular and complete data for the PLUTO database.

2.2 In response to the needs identified by members of the Union and contributors to the PLUTO database in 2.1, the PLUTO database administrator will seek to develop solutions for each of the PLUTO database contributors.

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

2.4 With regard to the assistance to be provided to contributors, the PLUTO database “General Notice and Disclaimer” states that “[...] All contributors to the PLUTO database are responsible for the correctness and completeness of the data they supply. [...]”. Thus, in cases where assistance is provided to contributors, the contributor will continue to be responsible for the correctness and completeness of the data. In cases where the PLUTO database administrator is requested by the contributor to allocate UPOV codes, or where it is considered to be appropriate to amend a UPOV code allocated by the contributor, the PLUTO database administrator will make proposals for approval by the contributor. In the absence of responses within the designated time, the proposed UPOV codes will be used in the PLUTO database. Where the contributor subsequently notifies the PLUTO database administrator of a need for correction, the correction will be made at the first opportunity, in accordance with Section 4 “Frequency of data updating”.

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

3.1 *Data format*

3.1.1 In particular, the following data format options to be developed for contributing data to the PLUTO database:

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

² At its seventy-sixth session, held in Geneva on October 29, 2008, the Consultative Committee, approved an arrangement between UPOV and the World Intellectual Property Organization (WIPO) (UPOV-WIPO arrangement), concerning the UPOV Plant Variety Database, as follows:

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

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

3.1.3 Subject to Section 3.1.4, the character set for data shall be the Extended ASCII [American Standard Code for Information Interchange] representation, as defined in ISO [International Standards Organization]/IEC [International Electrotechnical Commission] Standard 8859 1: 1998.

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

3.2 Data quality and completeness

The following data requirements to be introduced in the PLUTO database

TAG	Description of Item	Current Status	Proposed status	Database developments required
<000>	Start of record and record status	mandatory	start of record to be mandatory	mandatory, subject to development of facility to calculate record status (by comparison with previous data submission), if required
<190>	Country or organization providing information	mandatory	mandatory	data quality check: to verify against list of codes
<010>	Type of record and (variety) identifier	mandatory	both mandatory	(i) meaning of "(variety) identifier" to be clarified in relation to item <210>; (ii) to review whether to continue type of record "BIL"; (iii) data quality check: to check against list of types of record
<500>	Species--Latin name	mandatory until UPOV code provided	mandatory (even if UPOV code provided)	
<509>	Species--common name in English	mandatory if no common name in national language (<510>) is given.	not mandatory	
<510>	Species--common name in national language other than English	mandatory if no English common name (<509>) is given	REQUIRED if <520> is provided	
<520>	Species--common name in national language other than English in non-Roman alphabet		not mandatory	
<511>	Species--UPOV Taxon Code	mandatory	mandatory	(i) if requested, the PLUTO database administrator to provide assistance to the contributor for allocating UPOV codes; (ii) data quality check: to check UPOV codes against the list of UPOV codes; (iii) data quality check: to check for seemingly erroneous allocation of UPOV codes (e.g. wrong code for species)
DENOMINATIONS				
<540>	Date + denomination, proposed, first appearance or first entry in data base	mandatory if no breeder's reference (<600>) is given	(i) mandatory to have <540>, <541>, <542>, or <543> if <600> is not provided (ii) date not mandatory (iii) REQUIRED if <550>, <551>, <552> or <553> are provided	(i) to clarify meaning and rename; (ii) data quality check: mandatory condition in relation to other items
<550>	Date + denomination, proposed, first appearance or first entry in data base in non-Roman alphabet		not mandatory	

TAG	Description of Item	Current Status	Proposed status	Database developments required
<541>	Date + proposed denomination, published		see <540>	(i) to clarify meaning and rename (ii) data quality check: mandatory condition in relation to other items
<551>	Date + proposed denomination, published in non-Roman alphabet		not mandatory	
<542>	Date + denomination, approved	mandatory if protected or listed	see <540>	(i) to clarify meaning and rename; (ii) to allow for more than one approved denomination for a variety (i.e. where a denomination is approved but then replaced) (iii) data quality check: mandatory condition in relation to other items
<552>	Date + denomination, approved in non-Roman alphabet		not mandatory	
<543>	Date + denomination, rejected or withdrawn		see <540>	(i) to clarify meaning and rename (ii) data quality check: mandatory condition in relation to other items
<553>	Date + denomination, rejected or withdrawn in non-Roman alphabet		not mandatory	
<600>	Breeder's reference	mandatory if existing	REQUIRED if <650> is provided	
<650>	Breeder's reference in non-Roman alphabet		not mandatory	
<601>	Synonym of variety denomination		REQUIRED if <651> is provided	
<651>	Synonym of variety denomination in non-Roman alphabet		not mandatory	
<602>	Trade name		REQUIRED if <652> is provided	(i) to clarify meaning (ii) to allow multiple entries
<652>	Trade name in non-Roman alphabet		not mandatory	
<210>	Application number	mandatory if application exists	mandatory if application exists	to be considered in conjunction with <010>
<220>	Application/filing date	mandatory if application exists	mandatory	explanation to be provided if TAG<220> not completed
<400>	Publication date of data regarding the application (protection)/filing (listing)		not mandatory	
<111>	Grant number (protection)/registration number (listing)	mandatory if existing	(i) mandatory to have <111> / <151> / <610> or <620> if granted or registered (ii) date not mandatory	(i) data quality check: mandatory condition in relation to other items; (ii) to resolve any inconsistencies concerning the status of TAG<220>
<151>	Publication date of data regarding the grant (protection) / registration (listing)		see <111>	data quality check: mandatory condition in relation to other items
<610>	Start date--grant (protection)/registration (listing)	mandatory if existing	see <111>	(i) data quality check: mandatory condition in relation to other items; (ii) data quality check: date cannot be earlier than <220>
<620>	Start date--renewal of registration (listing)		see <111>	(i) data quality check: mandatory condition in relation to other items; (ii) data quality check: date cannot be earlier than <610> (iii) to clarify meaning
<665>	Calculated future expiration date	mandatory if grant/listing	not mandatory	

TAG	Description of Item	Current Status	Proposed status	Database developments required
<666>	Type of date followed by "End date"	mandatory if existing	not mandatory	
PARTIES CONCERNED				
<730>	Applicant's name	mandatory if application exists	mandatory if application exists or REQUIRED if <750> is provided	
<750>	Applicant's name in non-Roman alphabet		Not mandatory	
<731>	Breeder's name	mandatory	mandatory	to clarify meaning of "breeder" according to document TGP/5 (see <733>)
<751>	Breeder's name in non-Roman alphabet		Not mandatory	
<732>	Maintainer's name	mandatory if listed	REQUIRED if <752> is provided	to be accompanied by start and end date (maintainer can change)
<752>	Maintainer's name in non-Roman alphabet		Not mandatory	
<733>	Title holder's name	mandatory if protected	mandatory if protected or REQUIRED if <753> is provided	(i) to clarify meaning of "title holder" according to document TGP/5 (see <731>) (ii) to be accompanied by start and end date (title holder can change)
<753>	Title holder's name in non-Roman alphabet		Not mandatory	
<740>	Type of other party followed by party's name		REQUIRED if <760> is provided	
<760>	Type of other party followed by party's name in non-Roman alphabet		not mandatory	
INFORMATION REGARDING EQUIVALENT APPLICATIONS IN OTHER TERRITORIES				
<300>	Priority application: country, type of record, date of application, application number		not mandatory	
<310>	Other applications: country, type of record, date of application, application number		not mandatory	
<320>	Other countries: Country, denomination if different from denomination in application		not mandatory	
<330>	Other countries: Country, breeder's reference if different from breeder's reference in application		not mandatory	
<900>	Other relevant information (phrase indexed)		REQUIRED if <950> is provided	
<950>	Other relevant information (phrase indexed) in non-Roman alphabet		not mandatory	
<910>	Remarks (word indexed)		REQUIRED if <960> is provided	
<960>	Remarks (word indexed) in non-Roman alphabet		not mandatory	
<920>	Tags of items of information which have changed since last transmission (optional)		not mandatory	to develop option to generate automatically (see 2.1.1.(a))
<998>	FIG		not mandatory	
<999>	Image identifier (for future use)		not mandatory	to create possibility to provide hyperlink to image (e.g. an authority's webpage)

TAG	Description of Item	Current Status	Proposed status	Database developments required
DATES OF COMMERCIALIZATION				
<800>	Commercialization dates		not mandatory	

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

3.3 Mandatory and required "items"

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

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

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

3.4 Dates of commercialization

3.4.1 An item has been created in the PLUTO database to allow for information to be provided on dates on which a variety was commercialized for the first time in the territory of application and other territories, on the following basis:

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

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

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

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

4. *Frequency of data submission*

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

5. *Disclaimer*

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

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

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

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

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

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

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

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

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

6. *Common search platform*

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

[Annex II 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 2019 [‡]	Number of new data submissions to PLUTO					
			2016	2017	2018	2019	2020	2021 (as of September 30, 2021)
African Intellectual Property Organization	OA	12	0	0	0	0	0	0
Albania	AL	n/a	0	0	0	0	0	0
Argentina	AR	377	1	0	0	2	3	3
Australia	AU	281	7	5	22	19	21	3
Austria	AT	0	4	4	5	5	5	4
Azerbaijan	AZ	n/a	0	0	0	0	0	0
Belarus	BY	n/a	0	1	0	0	0	2
Belgium	BE	2	5	3	5	6	4	5
Bolivia (Plurinational State of)	BO	n/a	0	1	0	0	0	1
Bosnia and Herzegovina	BA	n/a	n/a	0	0	0	0	0
Brazil	BR	283	0	3	5	11	11	8
Bulgaria	BG	25	6	3	4	10	10	6
Canada	CA	366	10	11	10	12	11	7
Chile	CL	82	6	5	7	6	4	2
China	CN	7834	1	1	0	1	1	2
Colombia	CO	107	0	2	0	1	0	0
Costa Rica	CR	4	3	2	1	2	0	0
Croatia	HR	2	2	2	2	2	2	2
Czech Republic	CZ	59	6	9	6	6	7	5
Denmark	DK	11	11	10	7	8	10	10
Dominican Republic	DO	20	0	0	0	0	0	0
Ecuador	EC	71	0	1	1	0	0	0
Egypt	EG	n/a	-	-	-	-	0	0
Estonia	EE	6	3	3	9	6	6	6
European Union	QZ	3,525	13	7	11	6	9	6
Finland	FI	8	2	2	3	1	3	3
France	FR	113	11	8	8	10	12	7
Georgia	GE	5	2	0	2	0	0	0
Germany	DE	58	12	8	9	10	10	10
Hungary	HU	38	19	14	11	13	13	10
Iceland	IS	n/a	0	0	0	0	0	0
Ireland	IE	5	2	1	2	2	3	3
Israel	IL	117	1	1	0	2	0	2
Italy	IT	8	6	6	3	4	5	2
Japan	JP	822	1	2	3	3	1	1
Jordan	JO	10	1	0	0	0	0	0
Kenya	KE	65	1	0	0	0	0	0
Kyrgyzstan	KG	0	0	0	0	0	0	0
Latvia	LV	3	1	2	2	1	1	2
Lithuania	LT	10	4	4	3	4	5	3
Mexico	MX	205	3	4	4	1	0	2

[‡] see document C/54/INF/7

Highlighted in grey indicates data provided via the CPVO.

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Contributor		Number of applications for PBR in 2019 [†]	Number of new data submissions to PLUTO					
			2016	2017	2018	2019	2020	2021 (as of September 30, 2021)
Montenegro	ME	n/a	0	0	0	0	0	0
Morocco	MA	80	0	1	0	0	0	0
Netherlands	NL	767	11	8	9	12	12	8
New Zealand	NZ	101	5	6	6	6	7	0
Nicaragua	NI	0	0	0	0	0	1	1
North Macedonia	MK	n/a	0	0	0	0	0	0
Norway	NO	18	3	4	7	7	3	4
Oman	OM	n/a	0	2	0	0	0	0
Panama	PA	1	1	1	0	0	0	0
Paraguay	PY	n/a	1	1	1	0	0	0
Peru	PE	55	0	1	1	1	0	0
Poland	PL	127	5	7	3	3	4	3
Portugal	PT	1	2	1	2	1	4	3
Republic of Korea	KR	695	0	0	1	3	1	1
Republic of Moldova	MD	16	3	1	2	2	2	0
Romania	RO	30	4	4	4	5	4	4
Russian Federation	RU	765	5	5	4	3	1	0
Serbia	RS	51	4	2	4	1	2	3
Singapore	SG	3	0	0	0	0	0	0
Slovakia	SK	13	5	6	4	4	3	5
Slovenia	SI	0	5	3	4	3	2	2
South Africa	ZA	282	1	2	2	3	0	0
Spain	ES	69	5	5	4	4	8	4
Sweden	SE	2	12	11	9	8	9	5
Switzerland	CH	54	5	6	3	6	8	5
Trinidad and Tobago	TT	n/a	0	0	0	0	0	0
Tunisia	TN	10	0	0	0	0	0	0
Turkey	TR	227	3	0	2	1	0	1
Ukraine	UA	1,238	0	0	3	5	0	3
United Kingdom	GB	187	13	10	12	8	8	5
United Republic of Tanzania	TZ	10	0	0	0	0	0	0
United States of America	US	1,590	16	12	12	12	10	4
Uruguay	UY	68	0	0	0	0	1	1
Uzbekistan	UZ	77	0	0	1	0	0	0
Viet Nam	VN	194	0	0	0	0	0	0
OECD	QM	-	2	2	2	2	2	1
Total		21,265	255	222	247	254	249	180

[Appendix follows]

APPENDIX

PLUTO DATABASE COVERAGE

	Year					
	2017	2018	2019	2020	2021 (as of September 30, 2021)	
	Number of UPOV members that contributed to the PLUTO database for the indicated year ¹	48	49	47	42	47
	Percentage of UPOV members that contributed to the PLUTO database for the indicated year	64%	65%	62%	55%	61%
A	Total number of PVP applications ²	18,369	19,681	21,265	n/a	n/a
B	Number of PVP applications accounted for by contributors to PLUTO database for indicated year ^{1, 2}	14,942	12,869	20,639	n/a	n/a
C	Percentage of PVP applications accounted for by contributors to PLUTO database for indicated year (B/A)	81%	65%	97%	n/a	n/a
D	Number of PVP applications included in PLUTO database ³	13,087	12,328	11,325	9,153	3,721
E	Percentage of PVP applications included in PLUTO database (D/A)	71%	63%	53%	n/a	n/a
	Number of new data submissions to PLUTO ⁴	222	247	254	249	180

Notes:

1. Contributors provide data for previous years. Therefore, a contributor providing data in, e.g. 2017, will be considered to have contributed data for 2015, 2016 and 2017.
2. See document C/54/INF/7 "Plant variety protection statistics for the period 2015-2019".
3. Status of information in the PLUTO database at September 30, 2021.
4. See Annex II, main table, for number of contributions by contributor.

Row "C" provides an indication of the "theoretical" completeness of the PLUTO database on the basis of the UPOV members contributing data.

Row "E" provides an indication of the actual completeness of data in the PLUTO database, reflecting:

- (i) UPOV members that do not contribute to the PLUTO database; and
- (ii) contributors that have not provided complete data.

[End of Annex II and of document]