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

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| Technical CommitteeFifty-Third SessionGeneva, April 3 to 5, 2017 | TC/53/8Original: EnglishDate: March 10, 2017 |

Exchange and use of software and equipment

Document prepared by the Office of the Union

Disclaimer: this document does not represent UPOV policies or guidance

# Executive summary

 The purpose of this document is to report on developments and to propose a revision of documents UPOV/INF/16/6 “Exchangeable Software” and UPOV/INF/22/3 “Software and equipment used by members of the Union”.

 The Technical Committee (TC) is invited to:

1. note that the Council, at its fiftieth ordinary session, held in Geneva, on October 28, 2016, adopted document UPOV/INF/16/6 “Exchangeable Software”;
2. note the deletion of SIVAVE software from document UPOV/INF/16;
3. consider the proposed revision of document UPOV/INF/16/6 to include information on the use of software by members of the Union, as set out in Annex I to this document;
4. note that the comments of the TC, at its fifty-third session, concerning the exclusion of software and the use of software by members of the Union, will be reported to the CAJ at its seventy-fourth session, to be held in Geneva in October 2017, and if agreed by the CAJ, a draft of document UPOV/INF/16/7 will be presented for adoption by the Council at its fifty-first ordinary session, to be held on October 26, 2017, on that basis;
5. note that the Council, at its forty-ninth ordinary session, held in Geneva, on October 28, 2016, adopted document UPOV/INF/22/3 “Software and equipment used by members of the Union”;
6. consider the information in Annex II to this document as a basis for a proposed revision of document UPOV/INF/22/3 and whether to request further guidance from the other UPOV bodies;
7. consider whether to propose to add a notice and disclaimer to document UPOV/INF/22 explaining that the information in that document is the responsibility of the contributing authority;
8. consider whether a reference to documents UPOV/INF/16 and UPOV/INF/22 should be made in training materials and presentations to promote the use of that information such as for facilitating the construction of databases;
9. consider whether the information in document UPOV/INF/22 should be presented in: (i) an alternative form (e.g. on-line format) rather than an INF document, or (ii) an on-line format in addition to the existing document UPOV/INF/22 format; and
10. note that the proposals of the TC, at its fifty-third session, concerning the revision of document UPOV/INF/22 will be reported to the CAJ at its seventy-fourth session, and if agreed by the CAJ, a draft of document UPOV/INF/22/4 will be presented for adoption by the Council at its fifty-first ordinary session, to be held on October 26, 2017.

 The following abbreviations are used in this document:

 CAJ: Administrative and Legal Committee

 TC: Technical Committee

 TWC: Technical Working Party on Automation and Computer Programs

 TWPs: Technical Working Parties

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ANNEX I PROPOSED REVISION TO DOCUMENT UPOV/INF/16/5 “EXCHANGEABLE SOFTWARE”

ANNEX II PROPOSED REVISION TO DOCUMENT UPOV/INF/22/2 “software and equipment used by members of the Union

# document UPOV/INF/16 “Exchangeable Software”

## Adoption of document UPOV/INF/16/6

 The Council, at its fiftieth ordinary session, held in Geneva, on October 28, 2016, adopted a revision of document UPOV/INF/16/6 “Exchangeable Software (document UPOV/INF/16/6), on the basis of document UPOV/INF/16/6 Draft 1 (see document C/50/19 “Report on the Decisions”, paragraph 19).

## Revision of document UPOV/INF/16/6

### Deletion of information

 On January 25, 2017, the Office of the Union received a request from Mexico for the deletion of SIVAVE software from document UPOV/INF/16 “Exchangeable Software” because of technological issues.

### Information on use by members

 Section 4 of document UPOV/INF/16 “Exchangeable Software” provides the following:

“4. Information on use by members of the Union

“4.1 A circular is issued to members of the Union on an annual basis, inviting them to provide information on their use of the software included in document UPOV/INF/16.

“4.2 The information on software use by members of the Union is indicated in the columns ‘Member(s) of the Union using the software’ and ‘Application by user(s)’. With regard to the indication of ‘Application by user(s)’, members of the Union can indicate, for example, crops or types of crop for which the software is used.”

 On December 15, 2016, the Office of the Union issued circular E-16/290 to the designated persons of the members of the Union in the TC, inviting them to provide or update information regarding the use of the software included in document UPOV/INF/16. The information received from Brazil and Mexico in response to the circular is included in Annex I to this document.

 The comments of the TC, at its fifty-third session, concerning the use of software by members of the Union, will be reported to the CAJ at its seventy-fourth session, to be held in Geneva on October 23 and 24, 2017.

 Subject to agreement by the TC at its fifty-third session, and the CAJ at its seventy-fourth session, a draft of document UPOV/INF/16/7 “Exchangeable Software” will be presented for adoption by the Council, at its fifty-first ordinary session, to be held in Geneva on October 26, 2017, on the basis of proposals as set out in paragraphs 6 and 8 to this document.

 The TC is invited to:

1. *note that the Council, at its fiftieth ordinary session, held in Geneva, on October 28, 2016, adopted document UPOV/INF/16/6 “Exchangeable Software”;*
2. note the deletion of SIVAVE software from document UPOV/INF/16;
3. *consider the proposed revision of document UPOV/INF/16/6 to include information on the use of software by members of the Union, as set out in Annex I to this document; and*
4. *note that the comments of the TC, at its fifty-third session, concerning the exclusion of software and the use of software by members of the Union, will be reported to the CAJ at its seventy-fourth session, to be held in Geneva in October 2017, and if agreed by the CAJ, a draft of document UPOV/INF/16/7 will be presented for adoption by the Council at its fifty-first ordinary session, to be held on October 26, 2017, on that basis.*

# Document UPOV/INF/22 “Software and equipment used by members of the Union”

## Adoption of document UPOV/INF/22/2

 The Council, at its fiftieth ordinary session, held in Geneva, on October 28, 2016, adopted a revision of document UPOV/INF/22/2 “Software and Equipment Used by Members of the Union” (document UPOV/INF/22/3), on the basis of document UPOV/INF/22/2 Draft 1 (see document C/50/19 “Report on the Decisions”, paragraph 20).

## Revision of document UPOV/INF/22/2

### Software for inclusion

 The procedure for considering software and equipment proposed for inclusion in document UPOV/INF/22 is set out in document UPOV/INF/22, as follows:

“2.1 Software/equipment proposed for inclusion in this document by members of the Union is, in the first instance, presented to the TC.

“2.2 The TC will decide whether to:

1. propose to include the information in the document;
2. request further guidance from other relevant bodies (e.g. CAJ and TWPs); or
3. propose not to include the information in the document.

“2.3 In the case of a positive recommendation by the TC and, subsequently by the CAJ, the software/equipment will be listed in a draft of the document, to be considered for adoption by the Council.

“4.1 A circular is issued to members of the Union on an annual basis, inviting them to provide information on their use of the software/equipment included in this document.”

 On December 15, 2016, the Office of the Union issued circular E-16/290 to the designated persons of the members of the Union in the TC, inviting them to provide information for document UPOV/INF/22. The information received from Estonia, the Russian Federation and the United Kingdom in response to the circular is included in Annex II to this document.

### Proposals by the TWC

 The TWC, at its thirty-fourth session, held in Shanghai, China, from June 7 to 10, 2016, agreed to propose that a note be added to document UPOV/INF/22 that the information in that document was the responsibility of the contributing authority. The TWC agreed that reference to documents UPOV/INF/16 and UPOV/INF/22 should be made on training materials and presentations to promote the use of that information such as for facilitating the construction of databases (see document TWC/34/32 “Report”, paragraph 70).

 The TWC agreed to suggest that information in UPOV/INF/22 be presented in an alternative form (e.g. on-line format) rather than an INF document (see document TWC/34/32, paragraph 71).

### Consideration by the TC

 The TC, at its fifty-third session, may wish to consider:

1. whether to request further guidance from other UPOV bodies (e.g. CAJ and TWPs) concerning the use of software by members of the Union, as presented in Annex II to this document;
2. whether to propose to add a notice and disclaimer to document UPOV/INF/22 explaining that the information in that document is the responsibility of the contributing authority;
3. whether a reference to documents UPOV/INF/16 and UPOV/INF/22 should be made in training materials and presentations to promote the use of that information such as for facilitating the construction of databases; and
4. whether the information in document UPOV/INF/22 should be presented in: (i) an alternative form (e.g. on-line format) rather than an INF document, or (ii) an on-line format in addition to the existing document UPOV/INF/22 format.

 Subject to agreement by the TC at its fifty-third session, and the CAJ at its seventy-fourth session, a draft of document UPOV/INF/22/4 “Software and Equipment Used by Members of the Union” will be presented for adoption by the Council, at its fifty-first ordinary session, to be held in Geneva on October 26, 2017, on the basis of proposals as set out in paragraphs 14 to 16 to this document.

 *The TC is invited to:*

1. *note that the Council, at its forty-ninth ordinary session, held in Geneva, on October 28, 2016, adopted document UPOV/INF/22/3 “Software and equipment used by members of the Union”;*
2. *consider the information in Annex II to this document as a basis for a proposed revision of document UPOV/INF/22/3 and whether to request further guidance from the other UPOV bodies;*
3. *consider whether to propose to add a notice and disclaimer to document UPOV/INF/22 explaining that the information in that document is the responsibility of the contributing authority;*
4. *consider whether a reference to documents UPOV/INF/16 and UPOV/INF/22 should be made in training materials and presentations to promote the use of that information such as for facilitating the construction of databases;*
5. *consider whether the information in document UPOV/INF/22 should be presented in: (i) an alternative form (e.g. on-line format) rather than an INF document, or (ii) an on-line format in addition to the existing document UPOV/INF/22 format; and*
6. *note that the proposals of the TC, at its fifty-third session, concerning the revision of document UPOV/INF/22 will be reported to the CAJ at its seventy-fourth session, and if agreed by the CAJ, a draft of document UPOV/INF/22/4 will be presented for adoption by the Council at its fifty-first ordinary session, to be held on October 26, 2017.*

[Annexes follow]

PROPOSED REVISION TO DOCUMENT UPOV/INF/16/5 “EXCHANGEABLE SOFTWARE”

(Proposals received from Brazil and Mexico in reply to circular E-16/290 are highlighted)

(a) Administration of applications

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Date added | Program name | Programming language | Function (brief summary) | Source & contact details | Condition for supply | Member(s) of the Union using the software | Application by user(s) |
| October 24, 2013 | ZAJVKA | SQL Windows | Information on applications (name and address of applicants, proposed denomination, date of application etc) and registration (denomination, date of registration) | Russian Federation: State Commission of the Russian Federation for Selection Achievements Test and Protection, Valentin Sherbina,Chief of IT Department E-mail: gossort@gossort.com  | Only available in Russian | RU | all crops |
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| ~~October 16, 2014~~ | ~~SIVAVE~~ | ~~Database:~~~~Mysql 5.1~~~~PHP  Version 2.5.9~~~~Ajax.~~~~Javascript.~~~~Routines are integrated with Java Applets and several Java Archives (JARS).~~~~Complements:~~~~Zend Optimizer 3.3~~~~Compilers:~~~~Zend Studio~~~~ScriptCase~~ | ~~Allows for the real-time dissemination of the status of proceedings concerning applications for breeders’ rights in Mexico.~~ | ~~Mexico: Manuel Rafael Villa Issa, Director General, SNICS~~~~E-mail:~~ ~~manuel.villaissa@sagarpa.gob.mx~~~~Eduardo Padilla Vaca, Director,Plant Varieties, SNICS~~~~E-mail: eduardo.padilla@snics.gob.mx~~  | ~~Written application and justification of need for use.~~ | ~~MX~~ | ~~all crops~~ |
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(b) On-line application systems

(c) Variety denomination checking

(d) DUS trial design and data analysis

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Date added | Program name | Programming language | Function (brief summary) | Source & contact details | Condition for supply | Member(s) of the Union using the software | Application by user(s) |
| October 21, 2010 | DUSTNT | FORTRAN 90 | General program for analysis of data from DUS trials. Includes facilities for COY analysis and a wide range of multivariate analysis techniques | United Kingdom:Dr. Sally Watson Email: sally.watson@afbini.gov.uk  |  | GB | Herbage, Pea (Field & Veg), Parsnip, Swede, Onion, Brussels Sprout, Winter Oilseed Rape, Sugar Beet, Faba Beans, Spring Oilseed Rape, Kale, Linseed |
| CZ | Oilseed Rape, Grasses and Luzerne |
| EE | Grasses and Legumes |
| FI | Grasses, Red Clover, White Clover, Turnip Rape, Rye |
| KE | Maize |
| NZ | Grasses, Brassicas, Wheat, Barley, Garden Peas |
| VN | Maize, Flowers, Rice, Tomato, Potato, Soybean, Vegetables, and other species  |
| October 21, 2010 | GAIA | Windev | Computes comparisons of varieties for management of reference collections | France:Email: christophe.chevalier@geves.fr  |  | FR | Sorghum, Sugar Beet, Maize, Wheat, Barley, Oats, Rapeseed, Sunflower, Triticale, Pea |
| BR | Soybean, Wheat |
| CZ | Maize, Wheat, Barley, Oats, and Pea |
| HR | Barley, Maize, Soybean, Wheat |
| UY | Sorghum, Sugar Beet, Maize, Wheat, Barley, Oats, Rapeseed, Sunflower, Triticale, Pea |

(e) Data recording and transfer

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Date added | Program name | Programming language | Function (brief summary) | Source & contact details | Condition for supply | Member(s) of the Union using the software | Application by user(s) |
| October 21, 2010 | SIRIUS | Windev | Hand-Held Data Capture Software | France:Email: christophe.chevalier@geves.fr  |  | FR | Sorghum, Sugar Beet, Maize, Wheat, Barley, Oats, Rapeseed, Sunflower, Triticale, Pea, Herbage |

(f) Image analysis

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Date added | Program name | Programming language | Function (brief summary) | Source & contact details | Condition for supply | Member(s) of the Union using the software | Application by user(s) |
| October 24, 2013 | AIM | Windows | Image processing software | France:E-mail: christophe.chevalier@geves.fr  |  | FR | Rapeseed, Sunflower, Hydrangea, Flax, Peas, Carrot, Maize, Winter wheat, Orchids |

(g) Biochemical and molecular data

[Annex II follows]

PROPOSED REVISION TO DOCUMENT UPOV/INF/22/2 “software and equipment used by members of the Union

(Proposals received from Estonia, the Russian Federation and the United Kingdom in reply to circular E-16/290 are highlighted)

(a) Administration of applications

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Date added | Title of software/equipment | Function (brief summary) | Source & contact details | Member(s) of the Union using the software/equipment | Application by user(s) |
| October 29, 2015 | Administrative data | Database for administrative data on plant varieties | Federal Plant Variety OfficeE-mail: uwe.meyer@bundessortenamt.de | DE | All species |
| October 29, 2015 | MS Office Professional Plus 2010 | Applications management and database | Plant Breeders’ Rights UnitE-mail: benzionz@moag.gov.il | IL | All species |
| October 29, 2015 | Access | Database management | Instituto Nacional de semillasE-mail: gcamps@inase.org.uy | UY | All species |
|  | Sword Ptolemy | Intellectual property case management system supporting:PVR assessing and examining applications, and administrative tasks relating to applications and granting rights;Management of all records relating to these activities, including correspondence, documentation and transaction histories.Also see (b) below. | <http://intellect.sword-group.com/Home/Ptolemy> | NZ | All species |

(b) On-line application systems

| Date added | Title of software/equipment | Function (brief summary) | Source & contact details | Member(s) of the Union using the software/equipment | Application by user(s) |
| --- | --- | --- | --- | --- | --- |
| October 29, 2015 | E- Application | Electronic application for the protection of plant varieties and approval including qualified electronic signature | Federal Plant Variety OfficeE-mail: uwe.meyer@bundessortenamt.de  | DE | All species |
| October 29, 2015 | PDF  | Application for the protection of plant varieties | Instituto Nacional de semillasE-mail: gcamps@inase.org.uy | UY | All species |
| October 28, 2016 | Office (Word) and PDF | E-application for the protection of plant varieties and approval including qualified electronic signature | Oficina Nacional de Semillas.Registro de Variedades Vegetales.galizaga@ofinase.go.cr | CR | All species |
| October 28, 2016 | eAkte | Electronic system for processing and filing variety files | Federal Plant Variety OfficeE-mail: uwe.meyer@bundessortenamt.de | DE | All species |
| October 28, 2016 | Sword Ptolemy | Intellectual property case management system supporting:PVR assessing and examining applications, and administrative tasks relating to applications and granting rights;Management of all records relating to these activities, including correspondence, documentation and transaction histories.Also see (a) above. | <http://intellect.sword-group.com/Home/Ptolemy> | NZ | All species |

(c) Variety denomination checking

| Date added | Title of software/equipment | Function (brief summary) | Source & contact details | Member(s) of the Union using the software/equipment | Application by user(s) |
| --- | --- | --- | --- | --- | --- |
| October 29, 2015 | Variety denomination similarity  | Checking of variety denominations in national procedures according to phonetic rules as a supplement to testing | Federal Plant Variety OfficeE-mail: uwe.meyer@bundessortenamt.de  | DE | All species |
| October 28, 2016 | Sword Acsepto | Trade mark and design search tool supporting the searching for prior use of proposed denominations. | <http://intellect.sword-group.com/Home/Acsepto> | NZ | All species |
|  | Variety denomination similarity | Checking of variety denominations in national procedures according to phonetic rules as a supplement to testing | State Commission of the Russian Federation for Selection Achievements Test and ProtectionE-mail: gossort@gossort.com  | RU | All species |

(d) DUS trial design and data analysis

| Date added | Title of software/equipment | Function (brief summary) | Source & contact details | Member(s) of the Union using the software/equipment | Application by user(s) |
| --- | --- | --- | --- | --- | --- |
| October 29, 2015 | Register (DUS) | Cultivation design, data capture, compilation of lists, distinctness program, COYD and COYU, description of variety | Federal Plant Variety OfficeE-mail: uwe.meyer@bundessortenamt.de  | DE | All species  |
| October 29, 2015 | GAIA | Study and analysis of results | Instituto Nacional de semillasE-mail: gcamps@inase.org.uy | UY | All species |
| October 29, 2015 | INFOSTAST | Study and analysis of results | Instituto Nacional de semillasE-mail: gcamps@inase.org.uy | UY | All species |
| October 28, 2016 | SAS and R | Design and analysis |  | KE | All species |
|  | Register (DUS) | Cultivation design, data capture, compilation of lists, COYD and COYU, description of variety | Agricultural Research CentreE-mail : sordi@pmk.agri.ee | EE | All species |

(e) Data recording and transfer

| Date added | Title of software/equipment | Function (brief summary) | Source & contact details | Member(s) of the Union using the software/equipment | Application by user(s) |
| --- | --- | --- | --- | --- | --- |
| October 29, 2015 | Reg.mobile | Mobile data capture with transmission of layout plan and data transfer to PC  | Federal Plant Variety OfficeE-mail: uwe.meyer@bundessortenamt.de  | DE | All species |
| October 29, 2015 | PANASONIC CF-U1 TOUGHBOOK | Data recording | CroatiaE-mail: bojan.markovic@hcphs.hr | HR | Maize |
| October 29, 2015 | Motorola MC55A0 PDA | Field DUS tests data acquisition | Plant Breeders’ Rights UnitE-mail: benzionz@moag.gov.il | IL | All species |
| October 28, 2016 | PANASONIC CF-U1TOUGHBOOK | Data recording | Finnish Food Safety AuthorityE-mail: Kaarina.paavilainen@evira.fi | FI | Mainly cross pollinated plants |
|  | PANASONIC FZ-G1TOUGHPAD | Data recording | SASAE-mail: Tom.Christie@sasa.gsi.gov.uk  | GB | All species |

(f) Image analysis

| Date added | Title of software/equipment | Function (brief summary) | Source & contact details | Member(s) of the Union using the software/equipment | Application by user(s) |
| --- | --- | --- | --- | --- | --- |
| October 29, 2015 | Image analysis | Automatic measurement of leaf characteristics in various plant species  | Federal Plant Variety Office E-mail:uwe.meyer@bundessortenamt.de  | DE | Employees of Federal Plant Variety Office  |
|  | IMAGIN | Automatic measurement of leaf characteristics in various plant species  | Biomathematics and Statistics ScotlandE-mail: adrian@bioss.sari.ac.uk  | GB | Pea, parsnip, brassicas |

(g) Biochemical and molecular data

| Date added | Title of software/equipment | Function (brief summary) | Source & contact details | Member(s) of the Union using the software/equipment | Application by user(s) |
| --- | --- | --- | --- | --- | --- |
| October 29, 2015 | NTSYSpc (version 2.21m) | Multivariate data analysis program | Applied Biostatistics, Inc. | KR | Clustering analysis for DNA marker development |

[End of Annex II and of document]