

**Technical Working Party for Agricultural Crops**

Forty-Sixth Session  
Hanover, Germany, June 19 to 23, 2017

**TWP/1/5**

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**Technical Working Party for Vegetables**

Fifty-First Session  
Roelofarendsveen, Netherlands, July 3 to 7, 2017

**Technical Working Party for Ornamental Plants and Forest Trees**

Fiftieth Session  
Victoria, Canada, September 11 to 15, 2017

**Technical Working Party for Fruit Crops**

Forty-Eighth Session  
Kelowna, Canada, September 18 to 22, 2017

**Technical Working Party on Automation and Computer Programs**

Thirty-Fifth Session  
Buenos Aires, Argentina, November 14 to 17, 2017

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**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**

1. 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”.
2. The TWPs are invited to note that:
  - (a) the Council, at its fiftieth ordinary session, held in Geneva, on October 28, 2016, adopted document UPOV/INF/16/6 “Exchangeable Software”;
  - (b) the SIVAVE software has been deleted from document UPOV/INF/16;
  - (c) the TC, at its fifty-third session, agreed that the proposed revision of document UPOV/INF/16/6 concerning the exchange of software and the use of software by members of the Union in conjunction with the comments of the TC, as set out in Annex I to this document, 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 “Exchangeable Software” will be presented for adoption by the Council at its fifty-first ordinary session, to be held on October 26, 2017, on that basis (see document TC/53/31 “Report”, paragraph 168);
  - (d) the TC agreed that the information in document UPOV/INF/16 should be made available in a searchable form on the UPOV website and noted that the Office of the Union would investigate a tool for that purpose;
  - (e) the Council, at its fiftieth ordinary session, held in Geneva, on October 28, 2016, adopted document UPOV/INF/22/3 “Software and equipment used by members of the Union”;

(f) the information received from Estonia, the Russian Federation and the United Kingdom in response to circular E-16/290 as approved by the TC at its fifty-third session, is included in Annex II to this document;

(g) the TC, at its fifty-third session, agreed to propose the addition of a disclaimer to document UPOV/INF/22 explaining that the document was intended to provide information on the use of software and equipment by members of the Union and to clarify that neither UPOV nor the contributing Authority were responsible for the performance of the software or equipment;

(h) the TC considered whether the information in document UPOV/INF/22 should be presented in an alternative form (e.g. on-line format) rather than an INF document and agreed that only the existing document UPOV/INF/22 format should be maintained; and

(i) the proposals of the TC, at its fifty-third session, concerning the revision of document UPOV/INF/22/3 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.

3. 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

4. The structure of this document is as follows:

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#### DOCUMENT UPOV/INF/16 "EXCHANGEABLE SOFTWARE"

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

5. 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

6. The TC, at its fifty-third session, noted the deletion of SIVAVE software from document UPOV/INF/16 (see document TC/53/31 "Report", paragraph 166).

7. 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.”

8. 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 circular E-16/290 is included in Annex I to this document.

9. The TC, at its fifty-third session, agreed that the proposed revision of document UPOV/INF/16/6 concerning the exclusion of software and the use of software by members of the Union in conjunction with the comments of the TC, as set out in Annex I to this document, 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 “Exchangeable Software” will be presented for adoption by the Council at its fifty-first ordinary session, to be held on October 26, 2017, on that basis (see document TC/53/31 “Report”, paragraph 168).

10. The TC agreed that the information in document UPOV/INF/16 should be made available in a searchable form on the UPOV website and noted that the Office of the Union would investigate a tool for that purpose (see document TC/53/31 “Report”, paragraph 169).

11. *The TWPs are invited to note that:*

*(a) the Council, at its fiftieth ordinary session, held in Geneva, on October 28, 2016, adopted document UPOV/INF/16/6 “Exchangeable Software”;*

*(b) the SIVAVE software has been deleted from document UPOV/INF/16;*

*(c) the TC, at its fifty-third session, agreed that the proposed revision of document UPOV/INF/16/6 concerning the exchange of software and the use of software by members of the Union in conjunction with the comments of the TC, as set out in Annex I to this document, 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 “Exchangeable Software” will be presented for adoption by the Council at its fifty-first ordinary session, to be held on October 26, 2017, on that basis; and*

*(d) the TC agreed that the information in document UPOV/INF/16 should be made available in a searchable form on the UPOV website and noted that the Office of the Union would investigate a tool for that purpose.*

## DOCUMENT UPOV/INF/22 "SOFTWARE AND EQUIPMENT USED BY MEMBERS OF THE UNION"

Adoption of document UPOV/INF/22/2

12. 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*

13. 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:

- a) propose to include the information in the document;
- b) request further guidance from other relevant bodies (e.g. CAJ and TWPs); or
- c) 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."

14. 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 circular E-16/290 as approved by the TC at its fifty-third session, is included in Annex II to this document.

15. The TC, at its fifty-third session, noted that the Council, at its fiftieth ordinary session, held in Geneva, on October 28, 2016, had adopted document UPOV/INF/22/3 "Software and equipment used by members of the Union" (see document TC/53/31 "Report", paragraphs 170 to 174).

16. The TC considered the information in Annex II to document TC/53/8 as a basis for a proposed revision of document UPOV/INF/22/3 and agreed to propose the following changes:

(c) Variety denomination checking (Row: Germany) to read: "Checking of variety denominations in national procedures according to phonetic rules ~~as a supplement to testing~~"

(f) Image analysis to read: "E-mail: [a.roberts@bioss.ac.uk](mailto:a.roberts@bioss.ac.uk)"

17. The TC agreed to propose the addition of a disclaimer to document UPOV/INF/22 explaining that the document was intended to provide information on the use of software and equipment by members of the Union and to clarify that neither UPOV nor the contributing Authority were responsible for the performance of the software or equipment.

18. The TC considered whether the information in document UPOV/INF/22 should be presented in an alternative form (e.g. on-line format) rather than an INF document and agreed that only the existing document UPOV/INF/22 format should be maintained.

19. The TC noted that the proposals of the TC, at its fifty-third session, concerning the revision of document UPOV/INF/22/3 would be reported to the CAJ at its seventy-fourth session, and if agreed by the CAJ, a draft of document UPOV/INF/22/4 would be presented for adoption by the Council at its fifty-first ordinary session, to be held on October 26, 2017.

20. *The TWPs are invited to note that:*

*(a) the Council, at its fiftieth ordinary session, held in Geneva, on October 28, 2016, adopted document UPOV/INF/22/3 "Software and equipment used by members of the Union";*

*(b) the information received from Estonia, the Russian Federation and the United Kingdom in response to circular E-16/290 as approved by the TC at its fifty-third session, is included in Annex II to this document;*

*(c) the TC, at its fifty-third session, agreed to propose the addition of a disclaimer to document UPOV/INF/22 explaining that the document was intended to provide information on the use of software and equipment by members of the Union and to clarify that that neither UPOV nor the contributing Authority were responsible for the performance of the software or equipment;*

*(d) the TC considered whether the information in document UPOV/INF/22 should be presented in an alternative form (e.g. on-line format) rather than an INF document and agreed that only the existing document UPOV/INF/22 format should be maintained; and*

*(e) 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]

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ANNEX I

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: <a href="mailto:gossort@gossort.com">gossort@gossort.com</a>	Only available in Russian	RU	all crops
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: <a href="mailto:manuel.villaissa@sagarpa.gob.mx">manuel.villaissa@sagarpa.gob.mx</a> Eduardo Padilla Vaca, Director, Plant Varieties, SNICS E-mail: <a href="mailto:eduardo.padilla@snics.gob.mx">eduardo.padilla@snics.gob.mx</a>	Written application and justification of need for use.	MX	all crops

(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: <a href="mailto:sally.watson@afbini.gov.uk">sally.watson@afbini.gov.uk</a>		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: <a href="mailto:christophe.chevalier@geves.fr">christophe.chevalier@geves.fr</a>		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

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: <a href="mailto:christophe.chevalier@geves.fr">christophe.chevalier@geves.fr</a>		FR	Sorghum, Sugar Beet, Maize, Wheat, Barley, Oats, Rapeseed, Sunflower, Triticale, Pea, Herbage

(f) Image 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 24, 2013	AIM	Windows	Image processing software	France: E-mail: <a href="mailto:christophe.chevalier@geves.fr">christophe.chevalier@geves.fr</a>		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 Office E-mail: <a href="mailto:uwe.meyer@bundessortenamt.de">uwe.meyer@bundessortenamt.de</a>	DE	All species
October 29, 2015	MS Office Professional Plus 2010	Applications management and database	Plant Breeders' Rights Unit E-mail: <a href="mailto:benzionz@moag.gov.il">benzionz@moag.gov.il</a>	IL	All species
October 29, 2015	Access	Database management	Instituto Nacional de semillas E-mail: <a href="mailto:gcamps@inase.org.uy">gcamps@inase.org.uy</a>	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.	<a href="http://intellect.sword-group.com/Home/Ptolemy">http://intellect.sword-group.com/Home/Ptolemy</a>	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 Office E-mail: <a href="mailto:uwe.meyer@bundessortenamt.de">uwe.meyer@bundessortenamt.de</a>	DE	All species

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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	PDF	Application for the protection of plant varieties	Instituto Nacional de semillas E-mail: <a href="mailto:gcamps@inase.org.uy">gcamps@inase.org.uy</a>	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. <a href="mailto:galizaga@ofinase.go.cr">galizaga@ofinase.go.cr</a>	CR	All species
October 28, 2016	eAkte	Electronic system for processing and filing variety files	Federal Plant Variety Office E-mail: <a href="mailto:uwe.meyer@bundessortenamt.de">uwe.meyer@bundessortenamt.de</a>	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.	<a href="http://intellect.sword-group.com/Home/Ptolemy">http://intellect.sword-group.com/Home/Ptolemy</a>	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 <del>as a supplement to testing</del>	Federal Plant Variety Office E-mail: <a href="mailto:uwe.meyer@bundessortenamt.de">uwe.meyer@bundessortenamt.de</a>	DE	All species
October 28, 2016	Sword Accepto	Trade mark and design search tool supporting the searching for prior use of proposed denominations.	<a href="http://intellect.sword-group.com/Home/Accepto">http://intellect.sword-group.com/Home/Accepto</a>	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 Protection E-mail: <a href="mailto:gossort@gossort.com">gossort@gossort.com</a>	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 Office E-mail: <a href="mailto:uwe.meyer@bundessortenamt.de">uwe.meyer@bundessortenamt.de</a>	DE	All species
October 29, 2015	GAIA	Study and analysis of results	Instituto Nacional de semillas E-mail: <a href="mailto:gcamps@inase.org.uy">gcamps@inase.org.uy</a>	UY	All species
October 29, 2015	INFOSTAST	Study and analysis of results	Instituto Nacional de semillas E-mail: <a href="mailto:gcamps@inase.org.uy">gcamps@inase.org.uy</a>	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 Centre E-mail : <a href="mailto:sordi@pmk.agri.ee">sordi@pmk.agri.ee</a>	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 Office E-mail: <a href="mailto:uwe.meyer@bundessortenamt.de">uwe.meyer@bundessortenamt.de</a>	DE	All species
October 29, 2015	PANASONIC CF-U1 TOUGHBOOK	Data recording	Croatia E-mail: <a href="mailto:bojan.markovic@hcphs.hr">bojan.markovic@hcphs.hr</a>	HR	Maize
October 29, 2015	Motorola MC55A0 PDA	Field DUS tests data acquisition	Plant Breeders' Rights Unit E-mail: <a href="mailto:benzionz@moag.gov.il">benzionz@moag.gov.il</a>	IL	All species
October 28, 2016	PANASONIC CF-U1 TOUGHBOOK	Data recording	Finnish Food Safety Authority E-mail: <a href="mailto:Kaarina.paavilainen@evira.fi">Kaarina.paavilainen@evira.fi</a>	FI	Mainly cross pollinated plants
	PANASONIC FZ-G1 TOUGHBOOK	Data recording	SASA E-mail: <a href="mailto:Tom.Christie@sasa.gsi.gov.uk">Tom.Christie@sasa.gsi.gov.uk</a>	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: <a href="mailto:uwe.meyer@bundessortenamt.de">uwe.meyer@bundessortenamt.de</a>	DE	Employees of Federal Plant Variety Office
	IMAGIN	Automatic measurement of leaf characteristics in various plant species	Biomathematics and Statistics Scotland E-mail: <a href="mailto:a.roberts@bioss.ac.uk">a.roberts@bioss.ac.uk</a>	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]