software and equipment used by members of the Union

(Extract from document [UPOV/INF/22/11](https://www.upov.int/edocs/infdocs/en/upov_inf_22.pdf))

***Please provide information on the non-customized software/equipment that you are using for the purposes of plant variety protection by completing tables (a) to (g) where relevant.***

|  |  |
| --- | --- |
| ***AUTHORITY SUBMITTING INFORMATION:*** | ***[please complete]*** |

(a) Administration of applications

| Date added | Title of software/equipment | Function (brief summary) | Source & contact details | UPOV member(s) using the software | Application by user(s) |
| --- | --- | --- | --- | --- | --- |
| October 29, 2015 | Administrative data | Database for administrative data on plant varieties | Federal Plant Variety Office E-mail: [thomas.brodek@bundessortenamt.de](mailto:thomas.brodek@bundessortenamt.de) | DE | All species |
| October 28, 2022 | Administrative data | Database for administrative data on plant varieties | Research Centre for Cultivar Testing E-mail: [m.rebarz@coboru.gov.pl](mailto:m.rebarz@coboru.gov.pl) | PL | All species |
| October 27, 2023 | Administrative data | Database for administrative data on plant varieties | Ukrainian Institute for Plant Variety Examination E-mail: [sops@i.ua](mailto:sops@i.ua) | UA | All species |
| October 25, 2024 | Administrative data | Database for administrative and technical data on plant varieties for national listing and/or plant breeder’s rights | CCAF - Center for Seed and Seedlings E-mail: [marina.zoric@hapih.hr](mailto:marina.zoric@hapih.hr) | HR | All species |
| October 29, 2015 | MS Office Professional Plus 2010 | Applications management and database | Plant Breeders’ Rights Unit E-mail: [benzionz@moag.gov.il](mailto:benzionz@moag.gov.il) | IL | All species |
| October 25, 2020 | Si.Inase | Database management | National Seed Institute (INASE) - Uruguay E-mail: [fboschi@inase.uy](mailto:fboschi@inase.uy) | UY | 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 (b) below. | <http://intellect.sword-group.com/Home/Ptolemy> | NZ | All species |
| November 2, 2018 | Microsoft Office Excel | Database for monitoring the registration of plant varieties | Servicio Nacional de Derechos Intelectuales - SENADI [www.propiedadintelectual.gob.ec](http://www.propiedadintelectual.gob.ec) | EC | All species |
| November 1, 2019 | Próton | Database for administrative data on plant varieties | National Plant Variety Protection Service (SNPC) E-mail: [snpc@agricultura.gov.br](mailto:snpc@agricultura.gov.br) | BR | All species |
| November 1, 2019 | Electronic program AVETIS | Database for administrative data on plant varieties | The State Plant Service under the Ministry of Agriculture of the Republic of Lithuania E-mail: [info@vatzum.lt](mailto:info@vatzum.lt) | LT | All species |
| October 28, 2022 | Navision Business Central | Database for administrative and technical data on plant varieties for listing and/or plant breeders rights | The Board for plant varieties E-mail: [teamsupport@rasraad.nl](mailto:teamsupport@rasraad.nl) | NL | All concerned species |
| October 27, 2023 | National Automated Information System for Testing and Registration of varieties (NAIS) | Database with administrative and technical data of applications for protection and for national listing, including information on VCU and DUS testing | State Inspection for Testing and Protection of Plant Varieties E-mail: [belsort@mail.ru](mailto:belsort@mail.ru) | BY | All species |
| October 27, 2023 | Management system DRV | Database management system for the Variety Registration Office | National Seed Institute (INASE) - Argentina E‑mail: [mmangieri@inase.gob.ar](mailto:mmangieri@inase.gob.ar) | AR | All species |
| October 25, 2024 | Java | Database for administrative data on plant varieties and public online register | Swedish Board of Agriculture E-mail: [vaxtsort@jordbruksverket.se](mailto:vaxtsort@jordbruksverket.se) | SE | All species |
| October 25, 2024 | Entry Desk System Integrated Seed System (SISEM) | Database for monitoring the registration of plant varieties Database for recording information on applications for variety registration | National Service for Plant and Seed Quality and Health – SENAVE E‑mail: [dpuv.dise@senave.gov.py](mailto:dpuv.dise@senave.gov.py) | PY | All species |
|  | ***[please*** | ***complete…*** | ***…*** | ***…*** | ***…]*** |

(b) On-line application systems

| Date added | Title of software/equipment | Function (brief summary) | Source & contact details | UPOV member(s) using the software | 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: [thomas.brodek@bundessortenamt.de](mailto:thomas.brodek@bundessortenamt.de) | DE | All species |
| October 25, 2024 | E-application | Electronic application for the protection of plant varieties | Swedish Board of Agriculture E-mail: [vaxtsort@jordbruksverket.se](mailto:vaxtsort@jordbruksverket.se) | SE | All species |
| October 29, 2015 | PDF | Application for the protection of plant varieties | National Seed Institute (INASE) - Uruguay E-mail: [fboschi@inase.uy](mailto:fboschi@inase.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](mailto:galizaga@ofinase.go.cr) | CR | All species |
| October 28, 2016 | eAkte | Electronic system for processing and filing variety files | Federal Plant Variety Office E-mail: [thomas.brodek@bundessortenamt.de](mailto:thomas.brodek@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 |
| November 1, 2019 | CultivarWeb | - Electronic application system for the protection of plant varieties - Management of applications - Electronic signature - Fee administration | National Plant Variety Protection Service (SNPC) E-mail: [snpc@agricultura.gov.br](mailto:snpc@agricultura.gov.br) | BR | All species |
| October 25, 2020 | VATIS | Electronic applications for Plant Variety Rights and for the National listing. Language(s): Lithuanian and English | The State Plant Service under the Ministry of Agriculture of the Republic of Lithuania: [info@vatzum.lt](mailto:info@vatzum.lt) | LT | All species |
| October 27, 2023 | Remote Procedures Platform (TAD) | Applications for plant variety protection and national listing | National Seed Institute (INASE) - Argentina E‑mail: [mmangieri@inase.gob.ar](mailto:mmangieri@inase.gob.ar) | AR | All species |
|  | ***[please*** | ***complete…*** | ***…*** | ***…*** | ***…]*** |

(c) Variety denomination checking

| Date added | Title of software/equipment | Function (brief summary) | Source & contact details | UPOV member(s) using the software | Application by user(s) |
| --- | --- | --- | --- | --- | --- |
| October 29, 2015 | Variety denomination similarity | Checking of variety denominations in national procedures according to phonetic rules | Federal Plant Variety Office E-mail: [thomas.brodek@bundessortenamt.de](mailto:thomas.brodek@bundessortenamt.de) | DE | All species |
| October 26, 2017 | 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: [gsk@gossortrf.ru](mailto:gsk@gossortrf.ru) | RU | All species |
| October 28, 2022 | Variety denomination similarity | Checking of variety denominations in national procedures | Research Centre for Cultivar Testing E-mail: [m.rebarz@coboru.gov.pl](mailto:m.rebarz@coboru.gov.pl) | PL | All species |
| October 27, 2023 | Variety denomination similarity | Checking of variety denominations in national procedures | Ukrainian Institute for Plant Variety Examination E-mail: [sops@i.ua](mailto:sops@i.ua) | UA | 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 |
| September 21, 2021 | SI.INASE | Database to control denominations that have been commercialized in Uruguay | National Seed Institute (INASE) - Uruguay E-mail: [fboschi@inase.uy](mailto:fboschi@inase.uy) | UY | All species |
| October 27, 2023 | COMPARA | Allows comparison of a proposed denomination with the database of varieties registered and in process of being registered in Argentina | National Seed Institute (INASE) - Argentina E‑mail: [mmangieri@inase.gob.ar](mailto:mmangieri@inase.gob.ar) | AR | All species |
| October 25, 2024 | National Automated Information System for Testing and Registration of varieties (NAIS) | Checking of variety denominations in national procedures according to phonetic rules | State Inspection for Testing and Protection of Plant Varieties of Belarus E-mail: [belsort@mail.ru](mailto:belsort@mail.ru) | BY | All species |
|  | ***[please*** | ***complete…*** | ***…*** | ***…*** | ***…]*** |

(d) DUS trial design and data analysis

| Date added | Title of software/equipment | Function (brief summary) | Source & contact details | UPOV member(s) using the software | 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: [thomas.brodek@bundessortenamt.de](mailto:thomas.brodek@bundessortenamt.de) | DE | All species |
| October 26, 2017 | Register (DUS) | Cultivation design, data capture, compilation of lists, COYD and COYU, description of variety | Centre of Estonian Rural Research and Knowledge (METK) E-mail: [sordi@metk.agri.ee](mailto:sordi@metk.agri.ee) | EE | All species |
| October 29, 2015 | INFOSTAST, R and GAIA | Study of varietal differentiation and analysis of results | National Seed Institute (INASE) - Uruguay E-mail: [fboschi@inase.uy](mailto:fboschi@inase.uy) | UY | All species |
| October 28, 2016 | SAS and R | Design and analysis |  | KE | All species |
| October 28, 2022 | STATSIMG | Statistical analysis (COYU and COYD) | National Plant Variety Office  E-mail: [martin.tlaskal@ukzuz.cz](mailto:martin.tlaskal@ukzuz.cz) | CZ | Oilseed rape, grasses and lucerne |
| October 28, 2022 | Microsoft Excel | Trial design | Naktuinbouw E-mail: [teamsupport@rasraad.nl](mailto:teamsupport@rasraad.nl) | NL | All concerned species |
| October 25, 2024 | Microsoft Excel | Trial design, Making reports and variety descriptions, Study of varietal differentiation and analysis of results complete | CAAF - Center for Seed and Seedlings E-mail: [ivan.varnica@hapih.hr](mailto:ivan.varnica@hapih.hr) | HR | Barley, Maize, Soybean, Wheat |
| October 25, 2024 | Microsoft Excel | Design of the distribution of DUS field tests in accordance with the UPOV Test guidelines for the species under test | National Service for Plant and Seed Quality and Health – SENAVE E-mail: [dpuv.dise@senave.gov.py](mailto:dpuv.dise@senave.gov.py) | PY | Soybean and Wheat |
| October 25, 2024 | Database for variety description (Microsoft Excel) | Grouping of varieties and database for variety descriptions | Mr. Ramón Martínez García  E-mail: [ramon.martinez8@carm.es](mailto:ramon.martinez8@carm.es) | ES | Grapevine |
| October 28, 2022 | GenStat | Statistical analysis (COYU and COYD) | Naktuinbouw E-mail: [teamsupport@rasraad.nl](mailto:teamsupport@rasraad.nl) | NL | All concerned species |
| October 27, 2023 | Web application for DUS and VCU tests / R scripts and Shiny | Field trials design, data capture, reference varieties selection for DUS, description of variety / Statistical analysis | Ukrainian Institute for Plant Variety Examination E-mail: [sops@i.ua](mailto:sops@i.ua) | UA | All species |
|  | ***[please*** | ***complete…*** | ***…*** | ***…*** | ***…]*** |

(e) Data recording and transfer

| Date added | Title of software/equipment | Function (brief summary) | Source & contact details | UPOV member(s) using the software | 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: [thomas.brodek@bundessortenamt.de](mailto:thomas.brodek@bundessortenamt.de) | DE | All species |
| October 29, 2015 | PANASONIC CF-U1 TOUGHBOOK | Data recording | CAAF - Center for Seed and Seedlings E-mail: [ivan.varnica@hapih.hr](mailto:ivan.varnica@hapih.hr) | HR | Barley, Maize, Soybean, Wheat |
| October 28, 2016 | PANASONIC CF-U1 TOUGHBOOK | Data recording | Finnish Food Safety Authority E-mail: [Kaarina.paavilainen@evira.fi](mailto:Kaarina.paavilainen@evira.fi) | FI | Mainly cross-pollinated plants |
| October 26, 2017 | PANASONIC FZ-G1 TOUGHPAD | Data recording | SASA E-mail: [lesley.mccarthy@sasa.gov.scot](mailto:lesley.mccarthy@sasa.gov.scot) | GB | All species |
| October 29, 2015 | Motorola MC55A0 PDA | Field DUS tests data acquisition | Plant Breeders’ Rights Unit E-mail: [benzionz@moag.gov.il](mailto:benzionz@moag.gov.il) | IL | All species |
| October 28, 2022 | Mobile Field Register | Data recording, the trial definition transmission from the central database | Research Centre for Cultivar Testing E-mail: [m.rebarz@coboru.gov.pl](mailto:m.rebarz@coboru.gov.pl) | PL | All species |
| October 28, 2022 | Handheld | Data recording and transfer of data to Navision Business Central | Naktuinbouw E-mail: [teamsupport@rasraad.nl](mailto:teamsupport@rasraad.nl) | NL | All concerned species |
| October 27, 2023 | Handheld | Data recording, transfer to the central database | Ukrainian Institute for Plant Variety Examination E-mail: [sops@i.ua](mailto:sops@i.ua) | UA | All species |
| October 27, 2023 | National Automated Information System for Testing and Registration of varieties (NAIS) | Data recording at testing units and transfer data to the central database of Inspection | State Inspection for Testing and Protection of Plant Varieties of Belarus E-mail: [belsort@mail.ru](mailto:belsort@mail.ru) | BY | All species |
|  | ***[please*** | ***complete…*** | ***…*** | ***…*** | ***…]*** |

(f) Image analysis

| Date added | Title of software/equipment | Function (brief summary) | Source & contact details | UPOV member(s) using the software | Application by user(s) |
| --- | --- | --- | --- | --- | --- |
| October 29, 2015 | Image analysis | Automatic measurement of leaf characteristics in various plant species | Federal Plant Variety Office E-mail: [thomas.brodek@bundessortenamt.de](mailto:thomas.brodek@bundessortenamt.de) | DE | Employees of Federal Plant Variety Office |
| September 21, 2021 | Image analysis | Automatic measurement of leaf and flower petals characteristics | Variety Testing Department  E-mail: [lubomir.basta@uksup.sk](mailto:lubomir.basta@uksup.sk) | SK | Oilseed rape |
| October 26, 2017 | IMAGIN | Automatic measurement of leaf characteristics in various plant species | Biomathematics and Statistics Scotland E-mail: [a.roberts@bioss.ac.uk](mailto:a.roberts@bioss.ac.uk) | GB | Pea, parsnip, carrot, brassicas |
| November 1, 2019 | STATSIMG | Automatic measurement of leaf characteristics | National Plant Variety Office  E-mail: [martin.tlaskal@ukzuz.cz](mailto:martin.tlaskal@ukzuz.cz) | CZ | Oilseed rape, pea |
| October 28, 2022 | GenStat | Statistic and image analysis for concerned species | Naktuinbouw E-mail: [teamsupport@rasraad.nl](mailto:teamsupport@rasraad.nl) | NL | All concerned species |
|  | ***[please*** | ***complete…*** | ***…*** | ***…*** | ***…]*** |

(g) Biochemical and molecular data

| Date added | Title of software/equipment | Function (brief summary) | Source & contact details | UPOV member(s) using the software | 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 |
| September 21, 2021 | Applied Biosystems/ Excel | Designation of allelic variants of each SNP of a predefined set for the identification of soybean varieties | National Seed Institute (INASE) - Uruguay E-mail: [fboschi@inase.uy](mailto:fboschi@inase.uy); mmenoni@inase.uy | UY | Identify different cultivars molecularly with allelic variants by means of SNP in soybeans |
| October 27, 2023 | R scripts | Genetic distances calculation | Ukrainian Institute for Plant Variety Examination E-mail: [sops@i.ua](mailto:sops@i.ua) | UA | All species |
| October 27, 2023 | Molecular database | Platform that allows the creation of molecular databases by species and calculations of genetic distances by pairs of varieties | National Seed Institute (INASE) - Argentina E‑mail: [eloponto@inase.gob.ar](mailto:eloponto@inase.gob.ar); mmangieri@inase.gob.ar | AR | The genetic distances calculated with this platform are uploaded to the GAIA software for comparisons that combine morphological and molecular distances. It is currently used on soybeans, rice and cotton. |
|  | ***[please*** | ***complete…*** | ***…*** | ***…*** | ***…]*** |

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