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

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| Technical Working Party for Agricultural CropsForty-Seventh SessionNaivasha, Kenya, May 21 to 25, 2018Technical Working Party on Automation and Computer ProgramsThirty-Sixth SessionHanover, Germany, July 2 to 6, 2018Technical Working Party for VegetablesFifty-Second SessionBeijing, China, September 17 to 21, 2018 Technical Working Party for Fruit CropsForty-Ninth SessionSantiago de Chile, Chile, November 19 to 23, 2018Technical Working Party for Ornamental Plants and Forest TreesFifty-First SessionChristchurch, New Zealand, February 18 to 22, 2019 | TWP/2/2Original: EnglishDate: May 17, 2018 |

Variety description databases

Document prepared by the Office of the Union

Disclaimer: this document does not represent UPOV policies or guidance

EXECUTIVE SUMMARY

 The purpose of this document is to report on developments concerning variety description databases since the sessions the Technical Working Parties (TWPs) in 2017.

 The TWPs are invited to note the developments reported in this document.

 The structure of this document is as follows:

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[Review of document UPOV/INF/17 “Guidelines for DNA-Profiling: Molecular Marker Selection and Database Construction (‘BMT Guidelines’)” 3](#_Toc514263191)

 The following abbreviations are used in this document:

TC: Technical Committee

TC-EDC: Enlarged Editorial Committee

TWA: Technical Working Party for Agricultural Crops

TWC: Technical Working Party on Automation and Computer Programs

TWF: Technical Working Party for Fruit Crops

TWO: Technical Working Party for Ornamental Plants and Forest Trees

TWV: Technical Working Party for Vegetables

TWPs: Technical Working Parties

# Background

 Developments prior to 2017 are presented in document TWP/1/2 “Variety description databases”.

# Developments in 2017

Technical Committee

 The TC considered document TC/53/9 “Variety description databases” (see document TC/53/31 “Report”, paragraphs 175 to 181).

 The TC noted the presentations on databases made at the BMT, TWC and TWV at their sessions in 2016, as set out in document TC/53/9, paragraphs 9 to 35.

 The TC noted that the TWC had invited members to present their experiences in the development of databases, at its thirty-fifth session.

 The TC noted that the BMT had agreed that facilitating cooperation for the establishment of common databases containing molecular information was an important consideration for UPOV but would need to be initiated between UPOV members in the first instance, as set out in document TC/53/9, paragraph 10.

 The TC noted the series of challenges for the establishment of common databases containing molecular information and agreed that UPOV might be able to facilitate cooperation in this area by the provision of training and sharing of information.

 The TC agreed to request the Office of the Union to collect data on existing databases with morphological and/or molecular data. The TC agreed that the information collected should be included in the GENIE database and requested the Office of the Union to plan for the modification of the GENIE database according to available resources.

 The TC noted that breeders and academic institutions had extensive experience on the constitution and maintenance of databases and agreed on the value of inviting their contribution to UPOV’s work in that regard.

 The TC agreed that the guidance on plant material provided in document UPOV/TGP/5, Section 1 would be a suitable basis also for molecular data and requested the Office of the Union to propose guidance on confidentiality of molecular information for inclusion in document UPOV/TGP/5, Section 1, on that basis (see document TWP/1/9 “Confidentiality of molecular information”).

 On May 16, 2017, the Office of the Union issued UPOV Circular E-17/082 inviting members to provide information and/or make presentations to the TWPs, at their sessions in 2017, on variety description databases and on existing databases containing morphological and/or molecular data. Information collected on existing databases containing morphological and/or molecular data could be included in the GENIE database, according to available resources for the modification of the GENIE database.

 UPOV Circular E-17/082, issued on May 16, 2017, also invited members to present their experiences on the application of databases, development of new ideas regarding the management of information and guidance on the management of databases.

## Technical Working Party for Fruit Crops

 The TWF noted the work done by France for the GEMMA Database for Peach and agreed that the initial step before building any database should be to agree on the information to be shared, and the format to exchange and store the information (see document TWF/48/13 “Report”, paragraph 139).

## Working Group on Biochemical and Molecular Techniques and DNA-Profiling in Particular

 The BMT considered document BMT/16/21 “Integration of molecular data into DUS testing in Durum Wheat: Use of a standardized method for the efficient management of reference collections” and received a presentation by Ms. Alexandra Ribarits (Austria) (see document BMT/16/29 “Report”, paragraph 34).

### Review of document UPOV/INF/17 “Guidelines for DNA-Profiling: Molecular Marker Selection and Database Construction (‘BMT Guidelines’)”

 The BMT considered documents BTM/16/4 and BMT/16/5 and received a presentation by the Office of the Union on “Standards for databases containing molecular information”, a copy of which is reproduced in document BMT/16/5 Add. (see document BMT/16/29 “Report”, paragraphs 44 and 45).

 The BMT agreed to invite members and observers to provide comments on document UPOV/INF/17 “Guidelines for DNA-profiling: Molecular Marker Selection and Database Construction (‘BMT Guidelines’)”. The comments would be compiled by the Office of the Union in a document that would form the basis of a review of document UPOV/INF/17 by the BMT at its seventeenth session. The BMT further agreed to propose to introduce a new chapter concerning cooperation in the exchange of data and construction of databases in document UPOV/INF/17 on the basis of document BMT/16/5.

 Developments concerning the review of document UPOV/INF/17 are considered in document TWP/2/7 Rev. “Molecular techniques”.

Technical Working Party on Automation and Computer Programs

 The TWC received a presentation by the Office of the Union on “Standards for databases containing molecular information”, a copy of which would be provided as document TWC/35/20. The TWC noted the offer for interested members to participate in the test campaigns to develop the ST-26 standard for the presentation of nucleotide and amino acid sequence listings using XML (see document TWC/35/21 “Report”, paragraph 127).

 *The TWPs are invited to note the developments reported in this document.*

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