UPOV

International Union for the Protection of New Varieties of Plants

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Technical Working Party for Fruit Crops **TWF/51/6**

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ACCESS TO PLANT MATERIAL FOR THE PURPOSE OF MANAGEMENT OF VARIETY COLLECTIONS AND DUS EXAMINATION

Document prepared by an expert from Italy

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BACKGROUND

1. The Technical Working Party for Fruit Crops (TWF), at its forty-ninth session, held in Santiago de Chile, from November 19 to 23, 2018, agreed to discuss the item "Access to plant material for the purpose of management of variety collections and DUS examination" at its fiftieth session (see document TWF/49/12 "report", paragraph 106). It further agreed to invite Canada, China, European Union, Italy and Spain to give a presentation.

2. The TWF, at its fiftieth session held in Budapest, Hungary, received a presentation on "Canada's experience in accessing plant material for DUS testing" by an expert from Canada as presented in document TWF/50/9. The TWF also received presentations on "China's practice in accessing to plant materials for variety collection management and DUS test" by an expert from China and "Access to plant material for variety testing purposes: Status quo, problems and possible solutions" by an expert from Italy. Copies of the presentations have been published as an addendum to document TWF/50/9. The TWF also received oral reports by experts from the European Union and Spain on the situation in relation to access to plant material for the purpose of management of variety collections and DUS examination.

3. The TWF noted the following difficulties and challenges in relation to access to plant material for the purpose of management of variety collection and DUS examination:

- Plant health (risk to introduce pathogens in a variety collection)
- Importing plant material (phytosanitary measures)
- Lack of understanding from breeders on the merit to submit material of their varieties for reference purposes
- Lack of willingness of breeders to make their material available in cases where the DUS test takes place at the premises of another breeder
- Breeders requesting a guarantee about the use of the plant material provided
- Building, maintaining and renewing a collection of living plant material
- Often no access to plant material on the market, circulation of material in closed networks (club varieties)
- Limited use of technologies that could help: DNA, image analysis in limiting the necessity to transfer plant material
- Increasing number of protected and non protected varieties to be included. In the fruit sector, varieties are often developed worldwide and are adapted to grow in a wide range of environments
- Difficulty to access information (in particular when varieties are registered with different denominations or synonyms in national catalogues)

4. The TWF recalled the guidance provided in document TGP/4 "Constitution and maintenance of variety collections", and in particular the importance of cooperation, as reproduced below:

> "[…] 3.1.2.2 Sources of living plant material
>
> 3.1.2.2.4 Breeders are an important source of living plant material and cooperation with breeders is encouraged (see Section 3.2.3). In particular, for protected varieties, breeders have a particular incentive to

maintain their varieties since lack of maintenance of a variety may lead to the cancellation of the plant breeder's right. […]

3.2.2 Cooperation between authorities

3.2.2.1 For the establishment of variety collections, the availability of information on varieties of common knowledge is a key requirement. Exchange of information between authorities, breeders, botanic gardens, gene banks, and any other possible source of information is very important to define the list of varieties to be included in the collection (see Section 2.2). […]

3.2.3 Cooperation with breeders

3.2.3.1 Cooperation is a means by which authorities can increase the efficiency of the establishment and maintenance of variety collections, consequently strengthening plant breeders' rights.

3.2.3.2 Breeders are particularly encouraged to cooperate in the provision of living plant material, on the basis that the inclusion of varieties in the growing tests and other trials is important for the quality of the examination of distinctness and in consequence the quality of protection for a variety.

3.2.3.3 Cooperation with breeders can involve, for example, breeders or breeders' associations maintaining a collection of living plant material which is made available to the testing authority as required."

5. The TWF agreed that breeders are an important source of information and living plant material and that it was in the interest of the breeders to cooperate in the constitution and maintenance of variety collections. The TWF noted the comment by a representative from CIOPORA on the importance to protect breeders' interests when plant material is provided by breeders. They further commented on the risk perceived by breeders when examination offices performed breeding activities and how to ensure that the living collections were not used for breeding purposes. The TWF highlighted the need to have a high level of trust between PVP offices and breeders to ensure fruitful cooperation. The TWF noted that the European Union has adopted a policy on the use of plant material submitted for DUS testing purposes.

6. The TWF agreed to continue the discussion at its next session and invited the expert from Italy to prepare a document summarizing the issues faced by PVP offices and breeders, and to make proposals on how these issues might be addressed within UPOV. The TWF noted that experts from Canada, Chile, China, European Union, France, Germany, New Zealand, Spain and CIOPORA would help in preparing this document (see document TWF/50/13 "Report", paragraphs 40 to 44).

DEVELOPMENTS SINCE TWF/50

7. The annex to this document contains a copy of "Access to plant material for DUS trials – draft analysis of Key points", prepared by an expert from Italy, with the support of experts from Canada, Chile, European Union, Germany and New Zealand, to be considered by the fifty-first session of the TWF.

8. The TWF, at its fifty-first session is invited to consider the proposal and to decide on the way forward including on how these issues might be addressed within UPOV.

[Annex follows]

ANNEX

Access to plant material for DUS trials – draft analysis of Key points

Drafted by an expert from Italy, with the support of experts from Canada, Chile, European Union, Germany and New Zealand

Possible solutions:

A series of proposals are presented here for discussion, with the aim to further facilitate DUS examination by members of the Union.

1. Increase of cooperation among Examination Authorities/Managers of testing sites and collection holders

- Access to a centralized register including related descriptions of available material, including those currently and previously covered by a PVP, would be highly beneficial during the sourcing process, as it would reduce time and administrative burdens to trial managers. UPOV could publish the links to these national registers, while member countries will periodically update them. Minimum included collections should be those of breeders, Examination Authorities/ Managers of testing sites, and should possibly include also other collections held at national level. This register (or database) should also provide for a section, open only to UPOV Examination Authorities/Managers of DUS trials, which contains the description of varieties from the moment an application for PVP has been filed. Under the CPVO system, for instance, Technical Questionnaires are shared with Examination Offices right from the beginning.

An additional option might be to link the register with international catalogues of germplasm collections (such as EURISCO in the European Region, or GENESYS, at global level), which often also contain characterization data. The consultation of these inventories would be especially helpful in identifying sources for local material.

- Further stimulation of adoption/acquisition of reports of completed DUS trials undertaken in other countries would be desirable as it significantly reduces time and costs (for breeders and Examination Authorities/Managers of trial sites) in the geographical extension of a PVP. This will probably take some time as it might require countries to adapt their legal provisions governing national and foreign PVP and PBR and granting procedures.

- The existence of a standard document from UPOV/CPVO might help in obtaining reference varieties (both from breeders and from other sources) – to be attached to the request.

2. Facilitation of work carried out at testing sites

- Application of technical tools (including sharing of results among Testing stations) might be enhanced in the future, which could comprise:
    - Molecular characterization of varieties – protocols to be developed together with the BMT group;
    - Increased use high quality images and video records;
    - 5G technologies for cross-country real time transmission of images and live videos for comparison;
    - Big data and Artificial Intelligence;

The use of alternative conservation/propagation systems for material, such as cryoconservation or in vitro techniques, which reduce management costs and guarantee higher phytosanitary quality of material could be promoted also within UPOV, after definition of respective protocols. However, trial time will be prolonged when these techniques are applied since plants need a longer establishment period, at least in the fruit sector.

3. Enhancement of cooperation with breeders during the PVP procedure:

- Raising of breeders' awareness about the importance of reference varieties and the necessity to make them available for DUS trial purposes is one of the most frequently expressed aspects, and should be done both at UPOV and national level. Breeders should be fully aware of the benefits of DUS trials as a basis for granting a PVP, and of the necessity to contribute to the system through making available their material for side-by-side comparison. This mutual commitment should be more strongly underlined, e.g. in a specific UPOV statement/document, and be taken also at national level.

- In reaction to breeders' concerns related to illicit utilization in breeding of their protected varieties, it might be considered to develop a standardized model contract under UPOV, which accompanies exchange of material from the breeder to the Examining Authority/Testing station. Possible elements of this model contract could be:
    - A guarantee on the use of their material exclusively for DUS purposes (or in any case, a well-defined policy as to what may be done or not with material used as a reference for DUS testing purposes);
    - A guarantee on the absence of conflict of interest (for example species-specific) in case of breeding activities carried out at the Testing station;
    - A legal tool which sets future availability of the material for official purposes as a condition for granting a PVP.

- Enhancement of building trust from breeders' sides by increase of carrying out DUS tests at breeders' premises. In turn, after successful termination of the trial, a copy of the material should be given to the Examining Authority/Testing site for inclusion in the variety collection.

4. Updating of UPOV Test Guidelines (Test Protocols, in case of CPVO)

- Periodical updating of UPOV Test Guidelines, concerning example varieties would be highly desirable. In this way, outdated varieties could be timely replaced by new ones which are known and available for DUS testing. At the same time, it would be desirable to limit the inclusion of local varieties to the minimum unless availability of information on their presence in collections is guaranteed (for example through the inventory mentioned at point 1).

The updating of example varieties in Test Guidelines would be relatively simple in terms of time needed since it constitutes a "partial revision"; possibly this solution could be extended also in case of a complete revision of UPOV Test Guidelines which is a more lengthy procedure. In this situation, revised example varieties would be adopted even though the revision of the rest of the UPOV Test Guidelines is still ongoing.

[End of Annex and of document]