



TWV/41/6

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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
GENEVA

TECHNICAL WORKING PARTY FOR VEGETABLES

Forty-First Session
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PROJECT TO CONSIDER THE PUBLICATION OF VARIETY DESCRIPTIONS

Document prepared by the Office of the Union

1. The purpose of this document is to provide a report on developments in the *Ad hoc* Working Group on the Publication of Variety Descriptions (WG-PVD), the Administrative and Legal Committee (CAJ) and the Technical Working Parties (TWPs) in 2006, and the conclusions of the Technical Committee (TC) at its forty-third session, held in Geneva, from March 26 to 28, 2007.

Ad hoc Working Group on the Publication of Variety Descriptions (WG-PVD)

2. At its meeting on April 5, 2006, the WG-PVD considered the report on progress in the model studies (documents TC/41/9 and TC/42/9) and an oral report of the discussions in the forty-second session of the TC.

3. The WG-PVD recommended:

(a) to invite the TWPs and the TC to develop a list of criteria for the use of descriptions obtained from different locations and sources (the experts from France and Germany participating in the WG-PVD agreed to provide some key points as a starting point for discussion);

(b) to invite the TWPs to consider crops where those criteria might be satisfied such that the use of descriptions obtained from different locations and sources would be useful. For those selected crops, to investigate the value of the existing grouping / asterisked

characteristics, or possibly other characteristics, in the grouping of varieties based on descriptions from different locations and sources (a “reality” check).

4. The WG-PVD provisionally set a meeting for April 2007.

Administrative and Legal Committee (CAJ)

5. The CAJ, at its fifty-third session, held in Geneva on April 6, 2006, received an oral report from the Vice Secretary-General on the meeting of the WG-PVD, held on April 5, 2006. The CAJ took note of that report.

Technical Working Parties (TWPs)

6. As explained in paragraph 5, at their sessions in 2006, the TWPs were invited to:

(a) develop a list of criteria for the use of descriptions obtained from different locations and sources; and

(b) to consider crops where those criteria might be satisfied such that the use of descriptions obtained from different locations and sources would be useful. For those selected crops, to investigate the value of the existing grouping / asterisked characteristics, or possibly other characteristics, in the grouping of varieties based on descriptions from different locations and sources (a “reality” check).

7. In accordance with the discussions in the WG-PVD, the experts from France and Germany participating in the WG-PVD provided some key points as a starting point for discussion concerning a list of criteria for the use of descriptions obtained from different locations and sources. That list of criteria was presented to the TWPs for discussion at their sessions in 2006.

Technical Working Party for Vegetables (TWV)

8. At its fortieth session, held in Guanajuato, Guanajuato State, Mexico, from June 12 to 16, 2006, the TWV agreed with the key points for a list of criteria, as set out in the Annex to document TWV/40/6. With regard to paragraph 4 (c) of that Annex, it suggested that it should be clarified that there was only a small number of characteristics for grass varieties and that those characteristics were quantitative characteristics. A representative of the International Seed Federation (ISF) indicated that ISF would be in favor of open access to variety descriptions, but reported that ISF was also discussing whether it might be appropriate for access to be restricted to the breeder of the variety for a certain period, e.g. five years.

9. In accordance with the WG-PVD proposal, as set out in paragraph 3(b) of this document, the TWV proposed to investigate the value of grouping, asterisked and other characteristics in Pea and Tomato in both a global and regional approach. It was agreed that France would act as the coordinator for work on Pea and the European Community, working in conjunction with its examination offices, would act as the coordinator for work on Tomato. The outcome of a survey in respect of the use of grouping and other characteristics for tomato in a regional approach, carried out by the examination offices of the Community Plant Variety Office (CPVO) of the European Community, is attached as the Annex to this document. The

TWV also agreed that it would be useful to discuss the possibilities for ringtests prior to the revision of Test Guidelines and agreed to discuss that matter at its forty-first session.

Technical Working Party on Automation and Computer Programs (TWC)

10. The TWC took note of the information provided in document TWC/24/6.

Technical Working Party for Agricultural Crops (TWA)

11. The TWA considered document TWA/35/6 at its thirty-fifth session, held in Beijing, China, from July 3 to 7, 2006. It was suggested that the cost of any project on the publication of variety descriptions should be added to the list of criteria. An expert from France noted that, for most agricultural crops, there were not very many grouping characteristics and that the value of a database would be limited for the purposes of the management of reference collections since the best way to ensure the quality of the management of the reference collection was to obtain plant material and to produce variety descriptions for the location in which the DUS test was conducted. She also raised particular concern with regard to publishing information concerning parent lines. The Chairperson expressed concern that the incorrect use of data in a database could lead to incorrect decisions and emphasized the need for clear guidance to minimize that risk if descriptions were published. The representative of the European Seed Association (ESA) and ISF suggested that the development of databases of variety descriptions could help to raise the quality of reference collections and, therefore, of DUS testing. The expert from Australia noted that the publication of variety descriptions would lead to greater transparency which could improve the quality of DUS testing and suggested that it would be possible to be clear that the purpose was to improve the management of reference collections. He noted that the value of variety descriptions would vary according to the circumstances in each crop. An expert from the European Community wondered if it might be possible for authorities to publish variety descriptions of the grouping characteristics on a unilateral basis in order to ensure transparency.

12. In conclusion, the TWA noted that there were some potential benefits in the publication of variety descriptions, but noted that there were some risks and recognized that the work would have a significant cost. It also noted that there were no proposals for work within the TWA crops.

Technical Working Party for Fruit Crops (TWF)

13. At its thirty-seventh session, held in Salvador, Bahia State, Brazil, from August 21 to 25, 2006, the TWF noted the information provided in document TWF/37/6.

Technical Working Party for Ornamental Plants and Forest Trees (TWO)

14. At its thirty-ninth session, held in Fortaleza, Ceará State, Brazil, from August 28 to September 1, 2006, the TWO considered document TWO/39/6. The TWO concluded that, taking into account the particular situation of ornamental varieties which were distributed on a worldwide basis and which were, in general, distributed all over the world, the development of a project for the publication of variety description would imply a great effort and the involvement of a lot of work without clear benefit for DUS examination of ornamental varieties. Furthermore, there was sufficient information available on the internet and in commercial catalogues, and given the reduced number of breeders in relation to other species, the identification of relevant varieties and the availability of plant material was already good

enough and did not justify the development of that project. The TWO did not suggest any crop for the project.

Conclusions of the Technical Committee

15. At its forty-third session, the TC noted the report on developments in the WG-PVD, CAJ and TWPs, as presented in document TC/43/9. It agreed on the list of criteria for the use of descriptions obtained from different locations and sources as set out in the Annex to document TC/43/9 with the addition, as proposed by the TWA (see paragraph 11 above), that the cost of any project on the publication of variety descriptions should be added to the list of criteria. On that basis, the list of criteria for consideration by the TWPs for the use of descriptions obtained from different locations and sources is as follows:

- (a) to consider the species for which they see a real interest in creating an international database with variety descriptions;
- (b) to specify the aim and benefits expected;
- (c) to select the characteristics for which descriptions should be published;
- (d) to specify for each characteristic the degree of harmonization already achieved or aimed at (in the latter case, to specify if actions should be planned in order to improve the level of harmonization: ring tests, revision of the description of the way of observation in the guideline, ...);
- (e) to study the pertinence of a “regional approach”, rather than an “international approach” (to consider groups of countries and to compare descriptions within those groups only);
- (f) to propose minimum distances when making comparisons of data, for the relevant characteristics;
- (g) to list the countries which would contribute to the publication;
- (h) to consider the type of access (free or restricted to the contributors); and
- (i) to consider the cost of any project.

16. The TC noted that the work in the TWV (see paragraph 9 above) would be reported at the forty-fourth session of the TC and agreed that no further meeting of the WG-PVD should be arranged unless or until specific proposals were developed for the consideration of the WG-PVD by the TC or by a TWP.

[Annex follows]

ANNEX

Survey in Respect of the Use of Grouping and Other Characteristics for Tomato
in a Regional Approach (European Community)

Report prepared by the Community Plant Variety Office (CPVO) of the European Community

In the course of discussions held at the beginning of 2007 between the Community Plant Variety Office (CPVO) and representatives of its vegetable DUS testing stations, it was decided that the CPVO would circulate amongst its tomato examination offices (France, Hungary, Netherlands, Poland, Slovakia and Spain) a questionnaire requesting information on the regular use of grouping characteristics in the UPOV Test Guidelines for Tomato (document TG/44/10) for the planning of DUS trials and organization of the reference collection, and whether other characteristics are also used for this purpose.

Replies to the questionnaire below were received from five of the examination offices, which are outlined below (the text in *italics* refers to the question, and the text in normal font refers to a summary of the answers):

Questionnaire on the use of tomato grouping characteristics in UPOV TGP/44/10

Question 1:

In the realm of carrying out technical examinations for candidate tomato varieties, do you make use of the information provided by the following grouping characteristics in the UPOV guideline TG/44/10, in the planning of your DUS trial and the organization of your reference collection?: (the number after "YES" or "NO" indicates the number of responses)

| | Yes | No |
|---|-----|----|
| <i>a) Plant: growth type (characteristic 2)</i> | 5 | 0 |
| <i>b) Leaf: division of blade (characteristic 9)</i> | 4 | 1 |
| <i>c) Peduncle: abscission layer (characteristic 20)</i> | 5 | 0 |
| <i>d) Fruit: shape in longitudinal section (characteristic 24)</i> | 5 | 0 |
| <i>e) Fruit: number of locules (characteristic 33)</i> | 4 | 1 |
| <i>f) Fruit: green shoulder (before maturity) (characteristic 34)</i> | 5 | 0 |
| <i>g) Fruit: color at maturity (characteristic 38)</i> | 5 | 0 |

If you answered "NO" in respect of the characteristics above, please explain why you do not find that characteristic useful as an aid for the planning of DUS trials and the organization of your reference collection:

The single "NO" respondent to 1(b) explained that they had no reference varieties or candidate varieties with pinnate blades, and that the known pinnate varieties were very old and not perfectly pinnate. Another respondent pointed out that some breeders are liable to misinterpret this characteristic, so caution should be exercised.

The single “NO” respondent to 1(e) explained that the number of locules was proportional to the size of the fruit, thus they preferred to use for grouping the quantitative characteristic “Size of fruit” (characteristic 22).

One of the respondents explained that characteristics 24 and 33 should be used with caution since there could be an environmental influence on the state of expression.

Question 2

In addition to the seven characteristics above, do you use other characteristics in the UPOV Test Guidelines TG/44/10 or another official documentation (e.g. equivalent CPVO protocol) for grouping purposes? If so, which are these characteristics and what is your reason for using them for grouping purposes (discriminatory power, reliable information, etc)? Would you recommend that UPOV add them to the list of grouping characteristics in a future revision of the Test Guidelines for Tomato in order to facilitate the exchange of varietal information between authorities?

One respondent utilized characteristic 6 “Leaf: attitude” if sufficient differentiation could not be made upon the other grouping characteristics for organizing the DUS trial.

Three of the respondents utilized characteristic 22 “Fruit: size”. Although being a quantitative (QN) characteristic, caution should be exercised, it was recommended to be included for grouping purposes in the UPOV Test Guidelines.

One respondent utilized characteristic 23 “Fruit: ratio length/diameter” due to its discriminating power.

Two of the respondents made extensive use of disease resistance characteristics for grouping purposes, since information on this (important breeding) aspect was usually provided by breeders in the Technical Questionnaire, and these characteristics provided a high discriminating power.

Question 3

Any other comments

It is encouraged to make greater use of (asterisked) disease resistance characteristics for grouping purposes.

Although not strictly in the grouping sense, knowledge of the tomato crop should help to optimize the trial layout by taking into account traits such as earliness, firmness, speed of growing, etc.

Conclusions

- The majority of respondent make full use of all seven grouping characteristics in the UPOV Test Guidelines for Tomato (document TG/44/10).
- Characteristic 9 may be considered as being obsolete for modern tomato varieties.

- Several respondents expressed a preference for characteristic 22 to be included for grouping in the UPOV Test Guidelines, so long as the DUS examiners recognized the possible influence of the environment.
- According to whether the DUS testing station has substantial experience and facilities in disease resistance testing, it was recommended to make greater use of this type of characteristics for formal grouping purposes.

Overall, it can be concluded that there could be a rather smooth exchange on a regional level (European Community) of technical information on tomato varieties based upon the grouping characteristics in the current UPOV Test Guidelines for Tomato, document TG/44/10, since the use of these is mostly adhered to. However, it seems that an even greater amount of information could be gained from the use of certain other clearly identified characteristics for grouping purposes.

[End of Annex and of document]