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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS GENEVA

ENLARGED EDITORIAL COMMITTEE

Geneva, January 6, 2011

REVISION OF DOCUMENT TGP/7: PROVIDING PHOTOGRAPHS WITH THE TECHNICAL QUESTIONNAIRE

Document prepared by experts from the European Union

BACKGROUND

- 1. At its thirty-ninth session, held in Lisbon, Portugal, from June 2 to 6, 2008, the Technical Working Party for Fruit Crops (TWF) made the following proposal concerning ASW 16 (TG Template: Chapter 10: TQ 7.3) "Where a photograph of the variety is to be provided": the TWF proposed to add text indicating that guidance would be provided by the authority to enhance the usefulness of the photograph (e.g. to include a metric scale in the picture, to define what parts of the plant should be included; light conditions, background color, etc). The TWF agreed that the European Union, in collaboration with Australia, would prepare a draft text. At its forty-first session, held in Wageningen, Netherlands, from June 9 to 13, 2008 the Technical Working Party for Ornamental Plants and Forest Trees (TWO) agreed that the European Union, in collaboration with Australia and Canada, should prepare such a draft text.
- 2. At its forty-second session, held in Angers, France, from September 14 to 18, 2009, the TWO considered document TWO/42/16 "Guidance for Applicants on Providing Suitable Photographs of the Candidate Variety as an Accompaniment to the Technical Questionnaire", prepared by an expert from the European Union. The TWO agreed that the document provided a good basis to develop Additional Standard Wording (ASW) for inclusion in a future revision of document TGP/7, but agreed that the text was too prescriptive and would need to be edited to be more suitable for applicants completing the Technical Questionnaire. In addition, it was agreed that it would be useful to explain that the photograph(s), if provided

in an appropriate format, "may help the examination authority to conduct its examination of distinctness in a more efficient way" (quote from the TG/Template, Technical Questionnaire: Section 6). The TWF, at its fortieth session, agreed with the proposals of the TWO and also agreed that the text should be of a suitable length for applicants, although it should be explained that it would be possible for authorities to make the full explanation available by means of a link, rather than including all the text in the Technical Questionnaire. The TWO agreed that the European Union, in collaboration with experts from Australia, Canada, Germany, New Zealand and the United Kingdom, should prepare draft text of an ASW for consideration by the Technical Working Parties at their sessions in 2010.

- 3. At its thirty-ninth session, held in Osijek, Croatia, from May 24 to 28, 2010, the Technical Working Party for Agricultural Crops (TWA) considered document TWA/39/19 (see document TWA/39/27 "Report", paragraphs 61 and 62).
- 4. With regard to the proposed new text for ASW 16 in document TWA/39/19, paragraph 5 (paragraph 7 in this document), the TWA agreed that the wording should indicate that a photograph "would" help the examination authority to conduct its examination of distinctness in a more efficient way and "would" be used by the examination authority.
- 5. The following proposal has been amended in response to the comments made by the TWA at its thirty-ninth session and comments received from ornamental and fruit experts from Germany, New Zealand and the United Kingdom.

PROPOSAL

(Changes to documents TWC/28/19, TWV/44/19, TWO/43/19 and TWF/41/19 are indicated by strikethrough (deletions) and underline (additions)) Endnote

Additional Standard Wording (ASW)

- 6. Currently, TGP/7 (TG Template: Chapter 10: TQ 7.3) ASW 16 "Where a photograph of the variety is to be provided" states the following:
 - "A representative color photograph of the variety should accompany the Technical Questionnaire"
- 7. That text could be expanded in the Technical Questionnaire (TQ) in order to briefly explain to applicants the purpose of the color photograph. A weblink could also be created via the new text in the TQ in order to provide greater details on the best manner in which to take photographs, based on documents TWO/42/16 and TWF/40/14. The proposed new text for ASW 16 could read as follows
 - "A representative color photograph (image) of the variety displaying its main distinguishing feature(s), must accompany the Technical Questionnaire. A photograph provided according to the specified requirements (see [authority reference to be added]) in an appropriate format will help the examination authority to prepare its examination of distinctness in a more efficient way, by giving a visual illustration of the candidate variety which supplements the information provided in the Technical Questionnaire. The information provided by the photograph may be used in the selection of the most appropriate varieties of common knowledge to be grown alongside the candidate variety in the trial, as well as to place—group the variety

optimally within the DUS trial. For greater details, please consult the following weblink: www.[............................."

Guidance for applicants on providing suitable photographs of the candidate variety as accompaniment to the Technical Questionnaire

Introduction

The submission of photographs of a candidate variety together with the Technical Qquestionnaire is an obligation by many PBR authorities in order to have a complete PBR application. Photographs should only be requested by PBR authorities though if this would serve to supplement the information in the Technical Questionnaire. The purpose of the photograph is to provide useful and discriminatory information about the candidate variety for the organization of the DUS technical examination. The photograph may be published in the PBR authority's Official Journal to inform third parties of the details of new applications. The information provided by photographs submitted by the applicant breeder may in particular be useful for ornamental and fruit species, but certain other agricultural and vegetable species can also benefit from having photographs in order to have an optimal DUS trial design. In essence, the photographs complement the information furnished in the technical questionnaire and provide visual information on how a variety may be distinct from similar varieties of common knowledge, thereby assisting in the determination of reference varieties to be included or excluded in the DUS trial.

The taking of photographs of candidate varieties is influenced by various factors, such as including light conditions, and the background. The perception of the photograph can also be affected by the quality and resolution of the camera, as well asor the resolution of the screen on which the image isphotos are viewed, or the quality of the paper and ink for developed photographs. It is certainly not possible to standardize all conditions when photos are taken in the premises of applicant breeders but this document paper aims to provide guidance in order to provide meaningful and coherent information on the candidate variety, while decreasing the influence of the origin of the photograph (location, equipment, etc). By decreasing the influence of these external factors on the taking of photographs, it will help to ensure that "color", the most significant trait liable to be affected by such factors an imprecise picture, will be reliably represented in photographs provided by applicants. It should be noted that whilst a photograph may broadly depict color, reference to the relevant RHS Colour Chart in the text provides greater precision.

Criteria for taking photographs

Format

Photographs must be in color and submitted either in print form of at least 10cm x 15 cm., or as an electronic photo in jpeg format (minimum 960x1280 pixels). It should be noted that different makes/models of computer screens can influence the expression of the color and the advantage of a printout is that the applicant breeder can make a comment, e.g. actual color darker, and the examination office would see exactly the same printout. The photograph must be well focused and aim to have the plants or plant parts occupy as much of the frame of the photograph as possible.

Best time for taking photographs

Photographs must illustrate plants of the candidate variety at the stage when the distinctive features of the variety are most apparent. Often this is when the plants are fully developed and at the stage when they are of commercial value (e.g. flowering for many ornamentals, fruiting for many fruit species), which usually corresponds to the main set of characteristics in the corresponding UPOV guideline for the species in question.

Optimal photographic environment

Photographs should be taken under adequate light conditions and with an appropriate background. It is preferable to have photographs taken indoors, since one can ensure homogenous photographic conditions irrespective of the type of photographs and number of candidate varieties supplied by the same applicant. The background of the photograph should be neutral (e.g. off-white in case of dark colors or grey in case of light colors) and should not have a shiny surface. If the photograph is taken indoors, then this should preferably be done in the same room and under artificial light conditions which will ensure identical and ample luminosity on repeated occasions over time. If a photograph has to be taken outdoors, then this should not be in direct sunlight but in a shaded area with as much indirect natural light as possible or on a cloudy day.

Precisions on growing conditions

The plants of the candidate variety appearing in the photographs should have been grown under standard growing conditions for the crop in question, as may have been indicated in the Technical Questionnaire (e.g. indoor, outdoor, season of the year). If this is not the case, then any possible alteration in the expression of the characteristic(s) appearing in the photographs must be specified (e.g. seasonal conditions may influence the color and pattern of fruit and flowers of flowers in certain ornamental species, such as over coloring in apple according to outdoor light intensity and night temperatures, delphinium grown either outdoors or indoors). Furthermore, the photographs must not illustrate the original bred or discovered plant, or in the case of a new mutation or sport the plant part from which the variety originated. Instead, the photograph supplied must be based upon plants or trees propagated from the original plant or plant part.

Plant organs to be displayed

The photographs should show the plant parts which are a distinguishing feature of the candidate variety, as well as those of the whole plant and the most important commercial organs (flower, fruit, etc.). If the distinctive features of the candidate variety are very specific (e.g seed size, shape of leaf/flower/fruit, length of awns, color pattern of flower/fruit, etc.) it is recommended to remove these plant parts from the plant and take a well-focused close-up photograph of them.

Similar varieties

If tAlthough not a requirement, the applicant may wishwishes to illustrate differences between the candidate variety and the variety thought to be the most similar by the applicant as nominated by him/her under point 6 of the Technical Questionnaire, it may be useful to by providinge photographs of the candidate variety alongside the aforesaid similar variety. In such photographs, the distinguishing plant parts of the candidate variety should be photographed alongside the same plant parts of the nominated similar variety. In order to have consistency in the display of such photographs for the use of the examination office, the candidate variety must always be on the left side of the photograph taken alongside the similar variety; special care must also be taken that both the candidate variety and the similar variety are correctly labeled. Where there is more than one similar variety named by the applicant, a

separate photograph of the relevant plant parts of the candidate variety and each of those of the similar varieties could be provided.

Labeling

To avoid any possible mix-up of photographs with other candidate varieties in the DUS trial, the candidate variety (and where relevant the similar variety) appearing in a photograph must be clearly labeled with the breeder's reference and/or (proposed) variety denomination; trade names may be used only in addition to the breeder's reference and/or (proposed) variety denomination.

Metric scales

A metric scale in centimeters – also millimeters where a close-up photograph has been taken – should ideally appear along the horizontal and vertical margins of the photograph. If in ornamental species the photograph illustrates the color of the flower of the candidate variety, it is useful to display the relevant sheet of the RHS colour chart with the corresponding color alongside.

Color characteristics

For ornamental species, it should be noted that whilst a photograph may broadly depict color, reference to the relevant RHS Colour Chart placed alongside the pertinent plant organ (e.g. flower) provides greater precision. For other crop sectors, industry-recognized color charts can also be displayed alongside the pertinent plant organ (e.g. apple fruit). Likewise, the color itself of the plant organ may not be the most representative feature of the candidate variety but rather the color pattern (e.g. pattern of over color in apple fruit, stripes/spots/netting in phalaenopsis), and this can be well illustrated in a clear photograph.

Photographs should be taken under adequate light conditions and with an appropriate background. It is preferable to have photographs taken indoors, since one can ensure homogenous photographic conditions irrespective of the type of photographs and number of candidate varieties supplied by the same applicant. The background of the photograph should be neutral (e.g. off white in case of dark colours or grey in case of light colours) and not reflect light. If the photograph is taken indoors, then this should preferably be done in the same room and under artificial light conditions which will ensure identical and ample luminosity on repeated occasions over time. If a photograph has to be taken outdoors, then this should not be in direct sunlight but in a shaded area with as much indirect natural light as possible or on a cloudy day.

[End of document]

Endnote The Technical Working Party on Automation and Computer Programs (TWC), at its twenty-eighth session, held in Angers, France, from June 29 to July 2, 2010, considered document TWC/28/19 (paragraphs 1 to 9 of this document) and made the following comments (see document TWC/28/36 "Report", paragraph 40):

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paragraph	19	- to revise the first sentence to refer only to aspects affecting the image captured by the photograph and to introduce a separate sentence to address aspects affecting the reproduction of the image (e.g. resolution of the screen on which the image is viewed) - to replace "an imprecise picture" with "such factors"
		- to replace an imprecise picture with such factors
paragraph 9	(vi)	to modify the final sentence to apply to situations other than flower color in ornamental plants and to consider adding the possibility of using a standard color check chart , instead of the RHS Colour Chart
paragraph 9	(vii)	- to replace "and not reflect light" to "should not have a shiny surface", for example
		- to add an explanation that there should be uniform light distribution over the object to be photographed, and to give examples of how that might be achieved, e.g. by a light tent

The Technical Working Party for Vegetables (TWV), at its forty-fourth session, held in Veliko Tarnovo, Bulgaria, from July 5 to 9, 2010, considered document TWV/44/19 (paragraphs 1 to 9 of this document) (see document TWV/44/34 "Report", paragraphs 49 to 51).

The TWV agreed that the sentence in paragraph 9 (v) "In order to have consistency in the display of such photographs for the use of the examination office, the candidate variety must always be on the left side of the photograph taken alongside the similar variety; special care must also be taken that both the candidate variety and the similar variety are correctly labeled." should be reviewed, because it was not necessarily the case that examination offices specified that the candidate variety must always be on the left side.

The TWV noted the concerns of ISF concerning a requirement for photographs to be required for vegetable crops, especially as a failure to provide such a photograph could result in a rejection of an application. In particular, it noted the emphasis by ISF on the need to clarify that photographs should only be requested if they would supplement the information provided in the Technical Questionnaire. In that regard, ISF considered that a photograph should be attached to the variety description by the authority if an applicant was required to provide a photograph with the Technical Questionnaire.

The Technical Working Party for Ornamental Plants and Forest Trees (TWO), at its forty-third session, held in Cuernavaca, Morelos State, Mexico, from September 20 to 24, 2010, considered document TWO/43/19.

The TWO agreed that the document should be structured into sections with titles concerning the various aspects (e.g. format, background etc.) and illustrative examples should be provided. It agreed that more emphasis should be placed on the importance of providing information on shapes and color patterns and less emphasis on color. It was further agreed that it should be emphasized that it was not a requirement to provide photographs of the candidate variety alongside the nominated similar variety and agreed that the requirement that the "candidate variety must always be on the left side of the photograph taken alongside the similar variety" (see paragraph 9 (v)) should be deleted. With regard to the proposal of the Technical Working Party on Automation and Computer Programs (TWC) to consider adding the possibility of using a standard color check chart, instead of the RHS Colour Chart (see paragraph 9 (vi)), the TWO clarified that the use of such a standard color check chart would not be instead of the RHS Colour Chart. The TWO also agreed that the document should refer to the applicant rather than the breeder.

The Technical Working Party for Fruit Crops (TWF), at its forty-first session, held in Cuernavaca, Morelos State, Mexico, from September 27 to October 1, 2010, considered document TWF/41/19.

The TWF agreed that the document should be structured into sections with titles concerning the various aspects (e.g. format, background etc.) and illustrative examples should be provided. It was also agreed that it should be emphasized that it was not a requirement to provide photographs of the candidate variety alongside the nominated similar variety and agreed that the requirement that the "candidate variety must always be on the left side of the photograph taken alongside the similar variety" (see paragraph 9 (v)) should be deleted. With regard to the proposal of the Technical Working Party on Automation and Computer Programs (TWC) to consider adding the possibility of using a standard color check chart, instead of the RHS Colour Chart (see paragraph 9

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(vi)), the TWF noted that the use of such a standard color check chart would not be instead of the RHS Colour Chart. The TWF also agreed that the document should refer to the applicant rather than the breeder.

With regard to the proposed new text for ASW 16, as set out in document TWF/41/19, the TWF agreed that it should be amended to read:

"A representative color photograph (image) of the variety, displaying its main distinguishing feature(s), must accompany the Technical Questionnaire. A photograph provided according to the specified requirements (see ... [authority reference to be added]) will help the examination authority to prepare its examination of distinctness in a more efficient way by giving a visual illustration of the candidate variety. The information provided by the photograph may be used in the selection of the most appropriate varieties of common knowledge to be grown alongside the candidate variety in the trial, as well as to group the variety optimally within the DUS trial."

The TWF agreed that further consideration would need to be given to the Additional Standard Wording (ASW) in document TGP/7, and in the Test Guidelines, in order to enable the requirements of individual authorities to be provided.