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

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| Technical Working Party for Agricultural CropsFifty-Third SessionVirtual meeting, May 27 to 30, 2024 | TWA/53/9 Original: EnglishDate: May 30, 2024 |

report

Adopted by the Technical Working Party for Agricultural Crops

Disclaimer: this document does not represent UPOV policies or guidance

Opening of the session

 The Technical Working Party for Agricultural Crops (TWA) held its fifty-third session, from May 27 to 30, 2024, via electronic means. The list of participants is provided in Annex I to this report.

 The session was opened by Mr. Ľubomír Bašta (Slovakia), Chairperson of the TWA, who welcomed the participants.

 The TWA was welcomed by Ms. Yolanda Huerta, Vice Secretary-General of UPOV, via video message.

## Adoption of the agenda

 The TWA adopted the agenda as provided in document TWA/53/1 Rev.

## Development of guidance and information materials

 The TWA considered documents TWP/8/1 and TWA/53/6.

### (a) Explanatory Notes

#### UPOV/EXN/DEN “Explanatory Notes on Variety Denominations under the UPOV Convention” (Revision)

##### New variety denomination classes for Prunus and situations when a denomination should be compared with other classes within a genus

 The TWA considered situations when a denomination should be compared with denominations in other classes within a genus or the entire genus, as set out in document TWP/8/1, paragraph 11.

 The TWA agreed with the TWV and TWO that the situation described for *Prunus* would be applicable to denominations in other classes within a genus, i.e. denominations of interspecific hybrids should be different from those in the classes of all parent species; and denominations for varieties from one of the “Classes within a genus” should be different from denominations of interspecific hybrids with one parent in that class.

 The TWA agreed that applications filed with information on the genus only for the genera included in the list of “Classes within a genus” should be different from other denominations within that genus.

### (b) TGP Documents

#### TGP/5: Section 6 “UPOV Report on Technical Examination and UPOV Variety Description” (Revision)

##### Subsection “UPOV Variety Description”, item 16 “Similar varieties and differences from these varieties”

 The TWA considered the additional explanations proposed for inclusion under item 16 “Similar varieties and differences from these varieties” of the “UPOV Variety Description”, as set out in document TWP/8/1, paragraph 18.

 The TWA agreed with the TWO that item 16 “Similar varieties and differences from these varieties” should not be left unanswered in variety descriptions.

 The TWA agreed that the first proposed additional explanation to item 16 should read:

“A similar variety/varieties should be indicated. If no similar variety was identified, ‘none’ should be stated.”

 The TWA agreed that the second and third proposed additional explanations should not be included in the guidance. The TWA agreed that the last proposed additional explanation and the last bullet point should be amended to read:

“All characteristics where differences have been observed should be indicated.”

 The TWA noted that the “UPOV Report on Technical Examination” mentioned the “UPOV Variety Description” as its Annex. The TWA agreed to propose revising the structure of document TGP/5, Section 6 to clarify that the “UPOV Variety Description” was an Annex to the “UPOV Report on Technical Examination” and item 18 “Explanatory Note to the Annex: UPOV Variety Description” was another separate section of the guidance.

##### Subsection “UPOV Variety Description”, item 17 “Additional information”

 The TWA considered the additional explanations proposed for inclusion under item 17 “Additional Information” in the “UPOV Variety Description”, as set out in document TWP/8/1, paragraph 21.

 The TWA agreed that the examples provided along with “(a) Additional Data” were not appropriate and should not be included in the guidance.

 The TWA considered the new proposed item “(d)” and agreed that it was not possible to support its inclusion before further clarification was provided on the situations when this information should be provided.

 The TWA agreed that further information to be exchanged between authorities in variety examination reports should be agreed bilaterally.

#### TGP/7 “Development of Test Guidelines” (Revision)

##### Additional Standard Wording (ASW) 3 “Explanation of the growing cycle”

 The TWA considered a proposal to amend the standard wording of growing cycle for “fruit species with clearly defined dormant period” in document TGP/7, ASW 3(a), as set out in document TWP/8/1, paragraph 24.

 The TWA agreed with the proposal while noting it was not common situation in agricultural crops.

##### Additional Standard Wording (ASW) 7(b) “Number of plants / parts of plants to be examined”

 The TWA considered the proposal to amend document TGP/7, ASW 7(b), on the number of parts to be examined from single plants, as set out in document TWP/8/1, paragraph 28.

 The TWA agreed that it would not be appropriate to amend the additional standard wording ASW 7(b). The TWA agreed that ASW 7(b) should provide a defined number of plant parts to be observed for all characteristics in the Test Guidelines. The TWA agreed that in case different numbers of parts of plants should be observed for individual characteristics, they should be provided in Section 8 “Explanations on the Table of Characteristics”.

##### Guidance Note (GN) 28 “Example Varieties” – Example varieties for asterisked quantitative characteristics when illustrations are provided

 The TWA considered document TWA/53/8, presented by an expert from Germany.

 The TWA agreed with the TWV that Test Guidelines should have as much information as possible, including both example varieties and illustrations.

 The TWA considered paragraphs 2.1 to 2.3 of the proposal and agreed to invite the drafter from Germany to provide further explanation on the criteria for decision or examples when illustrations could replace example varieties.

#### TGP/12: Guidance on Certain Physiological Characteristics

 The TWA agreed with the proposal to amend document TGP/12 “Guidance on Certain Physiological Characteristics” to include a table of equivalence of states of expression in Test Guidelines with terminology used in the vegetable seed sector, as set out in document TWP/8/1, paragraph 34.

 The TWA agreed with the proposal to add an explanation that the table could only be used in case of known equivalence between the states of expression according to the method described in the explanation of the characteristic in Section 8.2 of the Test Guidelines.

 The TWA agreed that guidance in document TGP/12 should clarify that the use of the table should be determined on a case-by-case basis and the terminology used in the vegetable sector would not represent a general equivalence of states of expression in Test Guidelines.

## (c) Access to plant material for the purpose of management of variety collections and DUS examination

 The TWA considered the proposed elements for inclusion in requests for the submission of plant material of candidate varieties and varieties of common knowledge for DUS examination, as set out in document TWP/8/1, paragraph 41.

 The TWA agreed with the TWO that there was no need for further guidance to be developed on this topic.

## DUS tests: one site in two years versus two sites in one year

 The TWA received a presentation on “DUS tests: one site in two years versus two sites in one year” from an expert from Denmark. A copy of the presentation is provided in document TWA/53/7.

 The TWA noted the comparison of results from variety examinations conducted in different locations with different agroclimatic zones during the same year and examinations conducted in the same location in different years. The TWA noted that examinations conducted in similar agroclimatic conditions during the same year could generate results closer to those conducted in the same location in different years, when compared to examinations conducted in different agroclimatic conditions during the same year.

 The TWA noted that the examination of varieties in different locations during the same year would benefit from calibration and harmonization of procedures among examiners.

## Implementation of Purdy’s notation for pedigrees in UPOV PRISMA

 The TWA received a presentation from a representative of the International Seed Federation (ISF) on “Implementation of Purdy’s notation for pedigrees in UPOV PRISMA”, a copy of which is provided in document TWP/8/3.

 The TWA noted that the use of Purdy’s notation enabled providing parentage information for any crop in a standard format, avoiding the need to program individual application forms in online systems.

 The TWA noted that there would be cost implications related to developing a wizard to guide applicants providing information using Purdy’s notation and converting the information to the format required by different authorities.

## Image analysis and new technologies in DUS examination

 The TWA received a presentation on “UAV-Based Field Phenotyping in the United Kingdom Agricultural DUS testing” from an expert from the United Kingdom, a copy of which is provided in document TWA/53/3.

 The TWA noted the work reported and agreed to invite the expert from the United Kingdom to report developments at its fifty-fourth session.

## Experiences with new types and species

 The TWA noted that no experiences with new types and species had been reported.

## Developing new characteristics for Barley variety examination

 The TWA received a presentation on “Exploring new characteristics for Spring Barley variety examination” from an expert from the United Kingdom, a copy of which is provided in document TWA/53/5.

 The TWA noted the characteristics considered by the experts from the United Kingdom for potential use in DUS examination, which included 16 ear characteristics. The TWA noted the reports from the Czech Republic and Slovakia on prior consideration of characteristics such as grain: wrinkling and grain: rachilla length, which were not used in routine examinations.

 The TWA received a presentation on “Possible new characteristics for Spring Barley variety examination” from an expert from France, a copy of which is provided in document TWA/53/5 Add..

 The TWA noted the proposal of the following three additional characteristics for barley:

* Leaf: width (growth stage 25-29);
* Awn: length of smooth part of median nerve;
* Grain: spiculation of outer lateral nerves of dorsal side of lemma.

 The TWA considered the explanations provided for the assessment of inner and outer lateral nerves of dorsal side of lemma and agreed that they should be further considered in case the spiculation of outer lateral nerves was proposed for inclusion in the Test Guidelines.

 TWA agreed to invite the experts from France and the United Kingdom to report progress on the assessment of the proposed characteristics at its fifty-fourth session.

 The TWA agreed to invite members of the Union to consider the characteristics presented in documents TWA/53/5 and TWA/53/5 Add. for possible future inclusion in the Test Guidelines for Barley.

## Discussions on draft Test Guidelines

### Full draft Test Guidelines

#### Bent (*Agrostis canina* L., *Agrostis gigantea* Roth, *Agrostis stolonifera* L., *Agrostis capillaris* L.) (Revision)

 The subgroup discussed document TG/30/7(proj.1) presented by Mr. Peter Hendriks (Netherlands (Kingdom of)), and agreed the following:

|  |  |
| --- | --- |
| Cover page | to add a space between “*canina* L.” in the name box  |
| 6.5 | to add “A, B, C – see Chapter 3.3.3” |
| Table of chars. | to add example varieties |
| Char. 8 | to have states from “very short” to “very tall” |
| Ad. 1 | to read “Observations should be made by standard cytological methods.” |
| Ad. 10 | to add underling to “B: row plots” |
| TQ 6. | to add example |

#### Festulolium (×*Festulolium* Asch. et Graebn.) (Revision)

 The subgroup discussed document TG/243/2(proj.1) presented by Ms. Lydie Cechová (Czech Republic), and agreed the following:

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| 2.3 | to read “1 kg” and check whether to delete “of seeds” |
| 3.4.2 | to read “Row plots: Each test should be designed to result in a total of at least 8 meters, …” |
| Char. 3 | to check whether to be deleted |
| Char. 4 | to check whether to be deleted |
| Char. 5 | to add VS|A |
| Char. 7 | to check whether to be deleted (correlation with growth habit) |
| Char. 9 | to delete growth stage |
| Char. 17 | to check whether to delete or which types to be included, add explanation and example varieties |
| 8.1 (a) | state 5 to read “intermediate” |
| Ad. 1 | to read “Observations should be made by standard cytological methods.” |
| Ad. 3 | second sentence to read “Observations should be made at one occasion on the whole trial when the varieties are considered to have reached their full expression of this characteristic.” |
| Ad. 15 | to read “Char. 15: b = The part of the stem above the top node up to the beginning of the inflorescence is the upper internode. Char. 16: a = Length of the inflorescence.” |
| TQ 7.3 | to check whether to add an information about crossed species:“Parental species Please state initial parental species (*Lolium* sp., *Festuca* sp.) of the variety” |

#### Fodder Beet (*Beta vulgaris* Fodder Beet Group) (Revision)

 The subgroup discussed document TG/150/4(proj.2) presented by Ms. Anne-Lise Corbel (France), and agreed the following:

|  |  |
| --- | --- |
| Cover page | botanical name to read “*Beta vulgaris* L. Fodder Beet Group” and add synonyms to table with alternative names |
| 1. | to read “…all varieties of *Beta vulgaris* L. Fodder Beet Group.” |
| 2.3 | to delete full stop after 350 g |
| 4.2.2 | to read “These Test Guidelines have been developed for the examination of cross-pollinated and hybrid varieties…” |
| 4.2.3, 4.2.4 | to be deleted |
| 4.2.5 | to delete “in a sample of 200 plants,” |
| 4.2.6 | to be moved after 4.2.7 |
| Table of chars. | to update example varieties used throughout the table of characteristics |
| Char. 1 | - to be indicated as VG- to delete indication of “A” |
| Char. 2 | to delete VG |
| Char. 3 | to delete indication of “A” |
| Char. 4 to 7 | to add example varieties  |
| Char. 6 | to read “Leaf: glossiness” (one n) |
| Char. 14 | to check whether to reduce the scale to 5 notes |
| Char. 15 | - to display all 9 states and notes - to check whether to display shapes in grid- state 2 to read “obovoid”  |
| Char. 18 | to read “Root: length in relation to width” |
| Char. 22 | to check whether to add explanation on sample size and assessment (bulk sample) |
| 8. | - to add heading “Explanations on the Table of Characteristics”- to check whether to replace indications of A and B by explanation on sample sizes. |
| Ad. 1 | to read “Observations should be made on 100 seeds.The attribution of notes for state of expressions is as follows:Note 1 = monogerm with equal or more than 95% of monogerm seedsNote 2 = partly monogerm/partly multigerm with less than 95% and more than 15% monogerm seeds…” |
| Ad. 2 | to read “Observations should be made on at least 5 plants using standard cytological methods. …” |
| Ad. 12 | - to remove images from boxes and separate legends from images- to improve resolution of images |
| 8.2 | title to read “*Growth stage of Beta vulgaris L. adapted from the BBCH scale (Meier U., 1993)”* |
| TQ 1.1 | to read “*Beta vulgaris* L. Fodder Beet Group” |
| TQ 1.3 | to be deleted |
| TQ 5. | - to check whether to add further characteristics to the TQ- to check whether to add Char. 15 “Root: Shape” |

#### Grain Amaranth (*Amaranthus* L.) (Revision)

 The subgroup discussed document TG/247/2(proj.1) presented by Mr. Ľubomir Basta (Slovakia), and agreed the following:

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| 4.2 | to check whether only self-pollinated varieties are tested or whether further information on uniformity assessment should be included |
| Char. 2 | to read “Hypocotyl: intensity of anthocyanin coloration” |
| Char. 3 to 10 | to check whether to read “Leaf: …” |
| Char. 5 | - to read “Young leaf: length/width ratio”- to have states from “very low” to “very high” |
| Char. 9 | state 2 to read “central area” |
| Char. 18 to 21  | to check whether “blotch” is the correct term (see TGP/14 for guidance on color patterns and distributions) |
| Char. 20 | - to replace “silvery” with appropriate color- to check whether there’s a difference between “red” and “purple” |
| Char. 29 | to add explanation how to measure |
| Char. 31 | to check whether natural height (height of the plot) or plant length and adjust explanation |
| 8.1 (a) | to read “Observations should be made on leaves in the middle part of plants.” |
| 8.1 (b) | to be deleted (same wording as (a) and add (a) to all characteristics currently indicated as (b)) |
| Ad. 20 | to be deleted |
| Ad. 35 | to bring illustration for state one in the same direction as illustration for state 2 and remove shade |
| TQ 1. | to add 1.3 to read “Species (please indicate):” |
| TQ 6. | to add example |

#### \*Hemp, Cannabis (*Cannabis sativa* L.) (Revision)

 The subgroup discussed document TG/276/2(proj.3) presented by Ms. Lysbeth Hof (Kingdom of the Netherlands), and agreed the following:

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| Cover page | to move synonyms to table with alternative names |
| 1. | to delete synonyms |
| 2.3 | to read “The minimum quantity of plant material, to be supplied by the applicant, should be:Type AS: 500 g seeds Type AV: 60 rooted cuttingsType AF:   500 g feminized seedsType HV:  15 rooted cuttings Type HF:  500 feminized seeds[Flow chart for classification into types]A Arable cultivation practice (large scale, field), varieties grown for fibre and (oil-) seed productionH Horticultural cultivation practice (small scale field or controlled environment), varieties grown for uses other than fibre and (oil-)seed productionS Seed-propagatedV Vegetatively propagatedF Feminized seed propagated…” |
| 3.1.2 | to be deleted |
| 3.4.5 | to be deleted |
| 6.5 | - to delete “Consult paragraph 2.3 …”- to add “Variety types AS, AV, AF, HV and HF – see Chapter 2.3” |
| Char. 11 | to delete “intensity of” |
| 8.1 (d) | second sentence to read “If grown in a controlled environment, any male flowers should be removed before pollen is released.” |
| Ad. 8 | to replace the first two rows with “Time of male flowering is reached when at least one male flower is open on 50% of plants with male flowers.” |
| Ad. 11 | to check font size below illustrations |
| Ad. 12 | - to read “… Monoecious plants (male and female flowers on one plant) occasionally occur naturally but are specially developed by …”- second paragraph to read“Monoecious plants:         plants with both male and female flowersDioecious plants:   plants with female or male flowers only” |
| Ad. 26, 27 | last sentence to read “The range of expression of notes 1-3 of char. 26 is within the expression of note 1 of char. 27.” |
| Ad. 33 | to read “Marbling is the black mosaic pattern.” |
| 9. | - to delete last reference - to check format of references (see TGP/7, GN 30) |
| TQ 7. | - to delete “(auto-flowering)” in 7.3.1 (a) - to number existing content 7.3.1 and 7.3.2 and add new 7.3.3 to read as follows:“7.3.3 Type of variety (see Chapter 2.3 in the Test Guidelines for Hemp (document TG/276/2) for explanations):Type AS: Arable cultivation, Seed-propagated  […]Type AV: Arable Cultivation, Vegetatively propagated […]Type AF: Arable Cultivation, Feminized seed-propagated […]Type HV: Horticultural cultivation, Vegetatively propagated  […]Type HF: Horticultural cultivation, Feminized seed propagated […]” |

#### Mung Bean (*Vigna radiata* (L.) R. Wilczek)

 The subgroup discussed document TG/VIGNA\_RAD(proj.2), presented by Ms. Lixia Wang, on behalf of the Leading Expert, Mr. Xiongfei Jiao (China), and agreed the following:

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| 2.3 | minimum quantity of plant material, to be supplied by the applicant, to be indicated as “500 g of seed” |
| 4.2.3 | to delete last sentence |
| Table of chars.  | - to have full scales for QN characteristics (all states from 1 to 9 or 1 to 5)- to check scale of notes of all anthocyanin coloration characteristics |
| Char. 1 | to add (\*) (used as grouping characteristic) |
| Char. 3 | - to read “Stem: anthocyanin coloration”- to have states from (1) absent or very weak to (5) very strong- to be indicated as QN |
| Char. 4 | - state 1 to read “absent or weak”- state 2 to read “medium”- to check whether to use a scale of 5 notes |
| Char. 5 | - to replace “oval” with “ovate”- to check whether “narrow ovate” to read “lanceolate” (see TGP/14) |
| Char. 7 | to check whether truly QL or whether to be presented as a QN characteristic |
| Char. 8 | - to read “Leaf: size” with states “small, medium, large”- to check whether to have scale of 5 notes- to check whether to add example varieties |
| Char. 9 | to check whether truly QL or whether to be presented as a QN characteristic- to check whether to read “Petiole: anthocyanin coloration” |
| Char. 10 | to check whether to re-word state 3 (see document TGP/14 for guidance on colors) |
| Char. 14  | - to check whether to read “Plant: growth type”- to check whether state “sprawl” to read “semi-determinate”- to add (\*) (used as grouping characteristic) |
| Char. 17 | to be deleted |
| Char. 18 | to check the order of the chars (Plant and pod) (see TGP/7, GN26) |
| Char. 20 | to check whether to add example varieties |
| Char. 21 | to be indicated as QN |
| Char. 22 | - to read “Pod: number of seeds” (seeds in plural)- to add explanation |
| Char. 23 | to read check whether to read “Pod: curvature” and adjust states of expression (see other TGs for examples  |
| Char. 24 | - to read “Stem: shape in cross-section”- to check whether a QL characteristic with only two states or add more shapes for a PQ characteristic |
| Char. 26 | - to read “Pod: color of hairs”- to be indicated as QL |
| Char. 27 | to have states from “low” to “high” |
| Char. 28 | to check wording of states of expression (see TGP/14) (e.g. globose, narrow/broad oblong) |
| Char. 29, 30 | to check whether to be combined |
| Char. 31 | - to add (\*) (used as grouping characteristic)- to read “Seed: glossiness” |
| 8.1 (a) | to read “Observations should be made in the middle and upper part of the main stem.” |
| 8.1 (d) | to check names of flower parts (e.g. keel flap) |
| Ad. 1, 3, 6, 10, 11, 12 | to be deleted (illustrations of color) |
| Ad. 10 | to delete color illustrations and check whether to delete repeated illustration of flower parts |
| Ad. 14 | to replace illustrations with explanation on types (see e.g. TG Soya Bean) |
| Ad. 18 | - to clarify what to observe (is this different from Plant habit upright medium, spreading) |
| Ad. 22 | to become an explanation for Char. 20 (to become Ad. 20 and to read “Observations should be made from the cotyledon node of the plant to the last node where the compound leaf unfolds at the top of the plant.”) |
| Ad. 28 | to check whether to add information on differences between shapes (e.g. lateral outline, rounded, flat) |
| 8.3 | - growths stage 20 to read “Five percent of the plants in the plot have on flower open.”- growth stage 40 to read “50% of the pods are mature and the seeds are hard.”- to check growth stages  |

#### \*Sugarcane (*Saccharum* L.) (Revision)

 The subgroup discussed document TG/186/2(proj.5), presented by Mr. Muhammad Ali Bhatti (Australia), and agreed the following:

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| 3.3.2 | to be deleted |
| 3.4 | to reduce number of plants from 24 to 12 plants |
| 4.1.4 | second paragraph: to reduce number of parts to be taken from each of the plants from 23 to 2 |
| 4.2.3 | to reduce sample size from 24 to 12 plants |
| Table of chars. | to check allocation of labels for explanations in chapter 8.1 ((a), (b), …) |
| Char. 9, 10 | to check and have harmonized set of colors and to add example varieties (check current colors against newly proposed colors greenish white, yellowish green, green, purplish green, greenish yellow, purplish yellow, yellowish purple, greenish purple, purple) (see document TGP/14, Section 2 Subsection 3 for guidance on color)- to check approach to describe colors (main/secondary color or ground/over color? see TGP/14) |
| Char. 15 | to be moved after char. 10 |
| Char. 27, 28 | - to check colors- to check colors |
| Char. 47 | to read “… in cross-section” |
| 8.1 | - general explanation to read “Unless otherwise indicated, observations should be made at time of maturity on plants aged between 10 to 12 months, …”- to improve presentation of 8.1 (to check what to keep in 8.1 and what to move to 8.2)  |
| 8.1 (a) | to read “Observations on the node and internode should be made on the longest internode in the middle third of the primary or representative culm.” |
| 8.1 (b) | - to read “Observations should be made on the +3 leaf.”- to use same approach as in current adopted TG (see Ad. 7) |
| 8.1 (c) | - to be moved to 8.2 to the relevant characteristics (e.g. Ad. 31, 32, 33…) and delete (c)- to add number of characteristics to illustration |
| 8.1 (e) | to add text to (d) and to be deleted |
| Ad. 9, 10 | to check whether to add definition of color (see comment on char. 9, 10)“The main color should be observed. The main color is the color with the largest surface area. In cases where the areas of the main and secondary color are too similar to reliably decide which color has the largest area, the darker color is considered to be the main color.” |
| Ad. 17 | to add notes as in char. 17 |
| Ad. 20 | to better explain/show the differences between the shapes (grid?) |
| Ad. 32, 33 | to delete “and 8.1 (c)” |

#### \*Zoysia grasses (*Zoysia* Willd.)

 The subgroup discussed document TG/ZOYSI(proj.5), presented by Mr. Toru Watanabe (Japan), and agreed the following:

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| Cover page | to add synonyms according to GRIN to table with alternative names (*Osterdamia* Neck. ex Kuntze *Brousemichea* Balansa, *Matrella* Pers., *Zoydia* Pers., orth. var.) |
| Char., Ad. 13 | to be deleted |
| Char. 16 | to read “Stolon: anthocyanin coloration of leaf sheath” |
| Char. 17 | to read “Stolon: length of leaf sheath” |
| Char. 24 | to move purple before brown (order of colors, see TGP/14) |
| 8.1 (a) | to use improved illustration as below:ダイアグラム, 設計図  自動的に生成された説明 |
| 8.1 (b) | to delete “The following characteristics are observed except the varieties without ear.” and the list of characteristics |
| 8.1 (d) | to read “Observations should be made 4 months …” |
| Ad. 1 | - to read “The time of vegetative growth after overwintering should be observed …”- to delete photograph |
| Ad. 5, 9 | to be deleted |
| Ad. 18 | to read “Observations should be made on stolons which are not covered …” |
| Ad. 19 | to read “Observations should be made on leaves …” |
| Ad. 22 | to read “Observations should be made on black background using a magnifying glass.” |
| Ad. 23 | to read “Time of leaf senescence is reached when 50% of leaves have changed color.” |
| Ad. 24 | to be deleted |
| TQ 1 | to add 1.3 for indication of species (“Species (please indicate):”) |

### Partial revisions

#### \*Maize (*Zea mays* L.)

 The subgroup discussed document TWV/58/4-TWA/53/4, presented by Ms. Cécile Marchenay (Kingdom of the Netherlands), and noted that the TWV had agreed the following (see document TWV/58/11 “Report”, paragraphs 68 and 69):

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| --- | --- |
| NEW (after 8) | - to delete (\*)- to check whether to add that only applicable for sweet and popcorn varieties |
| Ad. NEW (after 8.) | to be improved |
| NEW (after 35.) | - to check whether to delete (\*)- to check whether not to include the characteristic in the TG |
| NEW (after 38.) | to be discussed at TWV/59 |

 The TWA noted that the TWV could not reach a consensus on the proposal for partial revision of the Test Guidelines for Maize. The TWV agreed that discussions could be continued with subgroup meetings, as appropriate, in preparation for discussions on the same proposal at the fifty-third session of the TWA, to be held from May 27 to May 30, 2024.

 The subgroup agreed the following:

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| --- | --- |
| Char. NEW (after 8) | not in favor to include char. in the TG |
| Char. NEW(after 38.) | - to check whether to include more colors (some or all colors of char. in 38) and to keep order of colors as in char. 38- if new char is introduced, Char. 38 to read “Ear: main color of top of grain”to be indicated as PQ |

 The TWA agreed to invite the leading expert from the Netherlands (Kingdom of) to hold meetings of the subgroup prior to the next sessions of the TWV and TWA in 2025.

## Recommendations on draft Test Guidelines

### (a) Test Guidelines to be put forward for adoption by the Technical Committee

 The TWA agreed that the following draft Test Guidelines should be submitted to the TC for adoption at its sixtieth session, to be held in Geneva on October 21 and 22, 2024, on the basis of the following documents and the comments in this report:

#### Full draft Test Guidelines

|  |  |
| --- | --- |
| Subject | Basic Document(s) (2024) |
| \*Hemp, Cannabis (*Cannabis sativa* L.) (Revision)  | TG/276/2(proj.3) |
| \*Zoysia Grasses (*Zoysia* Willd.) | TG/ZOYSI(proj.5) |

### (b) Test Guidelines to be discussed at the fifty-fourth session

 The TWA agreed to discuss the following draft Test Guidelines at its fifty-fourth session:

#### Full draft Test Guidelines

|  |  |
| --- | --- |
| Subject | Basic Document(s) (2024) |
| \*Bent (*Agrostis canina* L., *Agrostis gigantea* Roth, *Agrostis stolonifera* L., *Agrostis capillaris* L.) (Revision) | TG/30/7(proj.1) |
| Couch Grass, Bermuda Grass (*Cynodon* Rich.) | New |
| \*Festulolium (×*Festulolium* Asch. et Graebn.) (Revision) | TG/243/2(proj.1) |
| \*Fodder Beet (*Beta vulgaris* Fodder Beet Group) (Revision) | TG/150/4(proj.2) |
| Grain Amaranth (*Amaranthus* L.) (Revision) | TG/247/2(proj.1) |
| Mung Bean (*Vigna radiata* (L.) R. Wilczek) | TG/VIGNA\_RAD(proj.2) |
| \*Sugarcane (*Saccharum* L.) (Revision) | TG/186/2(proj.5) |

#### Partial revisions

|  |  |
| --- | --- |
| Subject | Basic Document(s) (2024) |
| \*Maize (*Zea mays* L.) - Characteristics 24.1 and 24.2 - Addition of new characteristics Tassel: sterility of male flowers Secondary color of grain - addition of characteristic to TQ 5 | TG/2/7,TWV/58/4-TWA/53/4 |
| Sweet Potato (*Ipomoea batatas* (L.) Lam.)- Adding a new characteristic “Leaf blade: anthocyanin coloration of nectary”- Adding a new shape to “Storage root: shape”- Adding new colors to “Storage root: main color of flesh”- Revision of example variety for char. 23 | TG/258/1 |

 The leading experts, interested experts and timetables for the development of the Test Guidelines are set out in Annex II to this report.

### (c) Possible Test Guidelines to be discussed in 2026

 The TWA agreed that it should consider the development of Test Guidelines for the following at a future session:

|  |  |
| --- | --- |
| Subject | Basic Document(s) (2024) |
| Common Millet (*Panicum miliaceum* L.) (Revision) | TG/248/1 |
| Turnip Rape (*Brassica rapa* L. var. *silvestris* (Lam.) Briggs.) (Revision) | TG/185/3 |
| White Mustard (*Sinapis alba* L.) (Revision) | TG/179/3 |

## Matters for information

Reports on developments in plant variety protection from members and observers

 The TWA noted the information on developments in plant variety protection from members and observers provided in document TWA/53/2 Prov. The TWA noted that reports submitted to the Office of the Union after May 10, 2024, and until May 30, 2024, would be included in the final version of document TWA/53/2.

### Reports on developments in UPOV

 The TWA received a presentation from the Office of the Union on developments in UPOV, a copy of which is provided in document TWP/8/2.

#### Technical Committee subgroup on Test Guidelines

 The TWV received an oral report from the leading expert of the subgroup, Ms. Margaret Wallace (United Kingdom). The following summary was provided by Ms. Wallace:

“Summary of outcomes so far:

* “Test Guidelines are essential for international harmonization of DUS testing.
* “Some participants wanted to develop an electronic version of the TG while others wanted to retain the printable function. Many of the users who print a copy for use in the field, often restrict this to the table of characteristics and accompanying explanation notes.
* “The majority of testing authorities adopt a national test guidelines from the UPOV TG, rather than use the UPOV TG during the test.
* “The use of example varieties and usefulness of diagrams and photographs was discussed. This may be addressed by the revision of GN28 being considered by the TWPs.
* “The adoption of national test guidelines based on the TG-template was generally supported but concerns about whether this is the most effective use of funds were raised.

“TWA participants are invited to contact Margaret Wallace to contribute to the work of the sub‑group. The work of the sub-group will be presented to each of the TWPs in their 2024 sessions. A document will be produced by the sub-group for consideration at the sixtieth session of the Technical Committee.”

## Date and place of the next session

 At the invitation of the United Republic of Tanzania, the TWA agreed to hold its fifty-fourth session in Arusha, from May 19 to 22, 2025.

## Future program

 The TWA agreed that documents for its fifty-fourth session should be submitted to the Office of the Union by April 4, 2025. The TWA noted that items would be deleted from the agenda if the planned documents did not reach the Office of the Union by the agreed deadline.

 The TWA proposed to discuss the following items at its next session:

1. Opening of the session
2. Adoption of the agenda

Matters for discussion

1. Procedures for DUS examination (presentations invited)
2. Situations where illustrations could complement or replace example varieties (document to be prepared by Germany)
3. Variety description databases (presentations invited)
4. Image analysis and new technologies in DUS examination (documents to be prepared by China, Denmark, United Kingdom and presentations invited)
5. Molecular techniques in DUS examination (presentation from the United Kingdom and presentations invited)
6. Reports on existing policies on confidentiality of molecular information (presentations invited)
7. Using the COYU-Splines method in DUS examination (presentations invited)
8. Experiences with new types and species (oral reports invited)
9. Developing new characteristics for Barley variety examination (documents to be prepared by France and the United Kingdom and presentations invited)
10. Discussion on draft Test Guidelines (Subgroups)
11. Recommendations on draft Test Guidelines
12. Date and place of the next session
13. Future program
14. Adoption of the Report on the session (if time permits)

Matters for information

1. Reports from members and observers (written reports to be prepared by members and observers)
2. Report on developments in UPOV (general developments, including variety denominations, information databases, exchange and use of software and equipment)
3. Closing of the session

 The TWA adopted this report at the end of the session.

[Annex I follows]

LIST OF PARTICIPANTS

I. mEMBERS

AFRICAN INTELLECTUAL PROPERTY ORGANIZATION (OAPI)

Damien Sagbo S HODONOU (Mr.), Patent & Plant Varieties Examiner, Yaoundé, Cameroun
(e-mail: salihou.hodonou@oapi.int)

Louise AKANVOU (Ms.), Director of Cooperation and Development Support; Focal point DUS tests and TIRPAA, Centre National de Recherche Agronomique (CNRA), Abidjan, Senegal
(e-mail: makanvou@gmail.com)

Nofou OUEDRAOGO (M.), Chargé de Recherche, INERA, Ouagadougou , Burkina Faso
(e-mail: nofou2008@yahoo.fr)

Aimé-Didier BEGOUDE BOYOGUENO (M.), Chercheur, Institut de Recherche Agricole pour le Développement (IRAD), Yaoundé, Cameroun
(e-mail: dbegoude@yahoo.fr)

Argentina

Ana Laura VICARIO (Ms.), National Director of Seed Development, National Seeds Institute (INASE), Secretary of Bioeconomy, Ministry of Economy, Buenos Aires
(e-mail: alvicario@inase.gob.ar)

Alberto BALLESTEROS (Mr.), Examier officer. Plant Variety Protection Office, National Seeds Institute (INASE), Secretary of Bioeconomy, Ministry of Economy, Buenos Aires
(e-mail: aballesteros@inase.gob.ar)

Armenia

Vagharsh MELKUMYAN (Mr.), Scientist of Research Department, Center for Agricultural Research and Certification, Ministry of Agriculture, v. Merdzavan
(e-mail: vagharshmelkumyan.carc@gmail.com)

Meruzhan ZADAYAN (Mr.), Head of Research Department, Center for Agriculture Research and Certification, Ministry of Agriculture, v. Merdzavan
(e-mail: meruzhanzadayan.carc@gmail.com)

Australia

Muhammad Ali BHATTI (Mr.), Examiner, Plant Breeder's Rights Office, Phillip
(e-mail: ali.bhatti@ipaustralia.gov.au)

Austria

Jutta TAFERNER-KRIEGL (Ms.), Head, Department for DUS testing and Plant Variety Protection, Austrian Agency for Health and Food Safety, Wien
(e-mail: jutta.taferner-kriegl@ages.at)

Brazil

Stefânia PALMA ARAUJO (Ms.), Coordinator, Plant Variety Protection Office, National Plant Variety Protection Service (SNPC), Brasilia
(e-mail: stefania.araujo@agro.gov.br)

Maria PARON (Ms.), Examiner, Plant Variety Protection Office, National Plant Variety Protection Service (SNPC), Brasilia
(e-mail: maria.paron@agro.gov.br)

Bulgaria

Diliyan Rousev DIMITROV, Head of Variety Testing Department, Executive Agency for Variety Testing, Field Inspection and Seed Control (IASAS), Sofia
(e-mail: ddimitrov@iasas.government.bg)

CANADA

Renée CLOUTIER (Ms.), Examiner, Plant Breeders' Rights Office, Canadian Food Inspection Agency (CFIA), Ottawa
(e-mail: renee.cloutier@inspection.gc.ca)

Lisa LEDUC (Ms.), Examiner, Plant Breeders' Rights Office, Canadian Food Inspection Agency (CFIA), Ottawa
(e-mail: lisa.leduc@inspection.gc.ca)

Graham THURSTON (Mr.), Examiner, Plant Breeders' Rights Office, Canadian Food Inspection Agency (CFIA), Ottawa
(e-mail: graham.thurston2@inspection.gc.ca)

CHINA

Xiongfei JIAO (Mr.), Technical Director, Xinzhou Branch Center, Xinzhou
(e-mail: moon413@163.com)

Yongxing WANG (Mr.), Technical Director of sub center, Bayannur
(e-mail: 545687560@qq.com)

Hua DENG (Mr.), Assistant professor, Chinese Academy of Forestry, Beijing
(e-mail: denghua@caf.ac.cn)

Yang LIU (Ms.), Researcher, Academy of Agriculture and Forestry Sciences, Qinghai University, Qinghai
(e-mail: yal559966@163.com)

Li REN (Ms.), Associate Researcher, Shanghai Academy of Agricultural Sciences, Shanghai Sub-center for New Plant Variety Tests, Shanghai
(e-mail: renliaqx@163.com

Lixia WANG (Ms.), Breeder, Institute of Crop Sciences, CAAS, Beijing
(e-mail: wanglixia03@caas.cn)

Cuiping CHEN (Ms.), Research Assistant, Qinghai Academy of Agriculture and Forestry Sciences, Xining
(e-mail: chencuiyang@126.com)

Hong ZHAO (Mr.), Research Assistant, Shanghai Academy of Agricultural Sciences, Shanghai Sub-center for New Plant Variety Tests, Shanghai
(e-mail: hbmyzh@126.com)

Yawei SUN (Mr.), Assistant Research Fellow, Xuzhou Institute of Agricultural Sciences, Xuzhou
(e-mail: syw9563@sina.com)

Hong-Juan WANG (Ms.), Assistant Research Fellow, Chongqing Academy of Agricultural Sciences, Baishiyi
(e-mail: hjwang\_2005@126.com)

Xiansheng WANG (Mr.), DUS Examiner, Institute of Germplasm Resources and Biotechnology, Jiangsu Academy of Agricultural Sciences, Nanjing
(e-mail: wangxiansheng80@126.com)

Yuan JIANG (Mr.), DUS Examiner, Guangzhou Sub-center for New Plant Variety Tests, Guangzhou
(e-mail: 63440900@qq.com)

Yimeng LI (Ms.), DUS Examiner, Xuzhou Institute of Agricultural Sciences, JAAS, Xuzhou
(e-mail: 20201015@jaas.ac.cn)

Xionghui BAI (Mr.), DUS tester, Xinzhou
(e-mail: 13935874098@163.com)

Ziyue LIANG (Ms.), Tester, Yulin Sub-center for New Plant Variety Tests, Ministry of Agriculture and Rural Affairs (MARA), Yulin
(e-mail: LIANGZIYUE163@163.COM)

Yanping WANG (Ms.), DUS tester, Institute of Germaplasm Resources and Biotechnology, Jiangsu Academy of Agricultural Sciences, Nanjing
(e-mail: 1226626413@qq.com)

Le Yong FENG (Mr.), Xinzhou Branch Center, Xinzhou
(e-mail: 542160366@qq.com)

Croatia

Luka DRENJANCEVIC (Mr.), Coordinator for Plant Variety Description and Post-registration trials, Croatian Agency for Agriculture and Food, Osijek
(e-mail: luka.drenjancevic@hapih.hr)

Dragana DRKUŠIĆ (Ms.), Senior adviser, Croatian Agency for Agriculture and Food, Osijek
(e-mail: dragana.drkusic@hapih.hr)

Zvonimir LALIC (Mr.), Senior Adviser, Croatian Agency for Agriculture and Food, Osijek
(e-mail: zvonimir.lalic@hapih.hr)

Antonia PETRIC (Mr.), Expert Associate, Croatian Agency for Agriculture and Food, Osijek
(e-mail: antonia.petric@hapih.hr)

Ivan VARNICA (Mr.), VCU Examiner of small cereals, Institute for Seed and Seedlings,Croatian Agency for Agriculture and Food, Osijek
(e-mail: ivan.varnica@hapih.hr)

Czech Republic

Pavla BIMOVÁ (Ms.), General affairs of DUS testing, National Plant Variety Office, Central Institute for Supervising and Testing in Agriculture (ÚKZÚZ), Brno
(e-mail: pavla.bimova@ukzuz.gov.cz)

Lydie CECHOVÁ (Ms.), DUS Agricultural Crops Specialist, Central Institute for Supervising and Testing in Agriculture (UKZUZ), Hradec Nad Svitavou
(e-mail: lydie.cechova@ukzuz.gov.cz)

Denmark

Preben KLARSKOV HANSEN (Mr.), DUS Coordinator, New Varieties and Seed for the Market, TystofteFoundation, Skaelskoer
(e-mail: pkh@tystofte.dk)

Erik LAWAETZ (Mr.), DUS Senior Scientist, TystofteFoundation, Skaelskoer
(e-mail: eal@tystofte.dk)

EGYPT

Shymaa ABOSHOSHA (Ms.), Agricultural Engineer, Plant Variety Protection Office (PVPO), Central Administration for Seed Testing and Certification (CASC), Giza
(e-mail: sh\_z9@hotmail.com)

EUROPEAN UNION

Jean MAISON (Mr.), Deputy Head, Technical Unit, Community Plant Variety Office (CPVO), Angers
(e-mail: maison@cpvo.europa.eu)

Bronislava BÁTOROVÁ (Ms.), Technical expert, seed sector, Community Plant Variety Office (CPVO), Angers
(e-mail: batorova@cpvo.europa.eu)

Laetitia DENECHEAU (Ms.), Technical Expert for Ornamental Plants, Plant Variety Expertise Unit, Community Plant Variety Office (CPVO), Angers
(e-mail: denecheau@cpvo.europa.eu)

Cécile COLLONNIER (Ms.), Technical Expert, Community Plant Variety Office (CPVO), Angers
(e-mail: collonnier@cpvo.europa.eu)

Finland

Kaarina PAAVILAINEN (Ms.), Chief Specialist, Finnish Food Authority, Loimaa
(e-mail: kaarina.paavilainen@ruokavirasto.fi)

FRANCE

Clarisse LECLAIR (Ms.), Head of DUS Testing, Groupe d'étude et de contrôle des variétés et des semences (GEVES), Beaucouzé
(e-mail: clarisse.leclair@geves.fr)

Frédéric LAFAILLETTE (Mr.), Head of DUS Fodder plant and Turf grasses, Groupe d'étude et de contrôle des variétés et des semences (GEVES), Erdre-en-Anjou
(e-mail: frederic.lafaillette@geves.fr)

Victoire SENEZ (Ms.), Head of fodder beets, Groupe d’étude et de contrôle des variétés et des semences (GEVES), Estrées-Mons
(e-mail: victoire.senez@geves.fr)

Anne-Lise CORBEL (Ms.), DUS manager - cereals, Groupe d’étude et de contrôle des variétés et des semences (GEVES), La Poueze
(e-mail: anne-lise.corbel@geves.fr)

Valérie UYTTEWAAL (Ms.), Manager of DUS test for Maize, Groupe d'étude et de contrôle des variétés et des semences (GEVES), Surgères
(e-mail: valerie.uyttewaal@geves.fr)

GERMANY

Beate RÜCKER (Ms.), Head of Division, Federal Plant Variety Office, Bundessortenamt, Hanover
(e-mail: beate.ruecker@bundessortenamt.de)

Elisabeth THIEMT (Ms.), Head of Section, DUS Testing Legumes, Oil and Fibre Crops, Testing Station Scharnhorst, Bundessortenamt, Neustadt
(e-mail: elisabeth.thiemt@bundessortenamt.de)

HUNGARY

Márton PÉCS (Mr.), Agricultural IT Expert, Department of Agricultural Variety Trials, Directorate of Agricultural Genetic Resources, National Food Chain Safety Office (NÉBIH), Budapest
(e-mail: pecsm@nebih.gov.hu)

Zoltán CSUROS (Mr.), DUS Expert, Variety Testing Department for Field Crops, National Food Chain Safety Office (NÉBIH), Budapest
(e-mail: csurosz@nebih.gov.hu)

Italy

Giovanni CORSI (Mr.), Technologist, DUS Expert, Institute of Plant Protection and Certification, Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria (CREA), Bologna
(e-mail: giovanni.corsi@crea.gov.it)

JAPAN

Toru WATANABE (Mr.), Senior Staff, DUS Test Team, National Center for Seeds and Seedlings (NCSS), Unzen
(e-mail: majiri@affrc.go.jp)

Takeshi SUGISAWA (Mr.), Senior Examiner, Plant Variety Protection Office, Intellectual Property Division, Food Industry Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries (MAFF), Tokyo
(e-mail: takeshi\_sugisawa820@maff.go.jp)

Naoko SAKAMOTO (Ms.), Staff, Center for Seeds and Seedlings (NCSS), National Agriculture and Food Research Organization (NARO), Hokkaido
(e-mail: sakamoton204@naro.affrc.go.jp)

NETHERLANDS (KINGDOM OF THE)

Lysbeth HOF (Ms.), Policy Officer, Naktuinbouw, Roelofarendsveen
(e-mail: l.hof@naktuinbouw.nl)

Peter HENDRIKS (Mr.), DUS Expert, Naktuinbouw, Roelofarendsveen
(e-mail: p.hendriks@naktuinbouw.nl)

Cécile MARCHENAY-KOENRAADT (Ms.), DUS Vegetable Crops Specialist, Naktuinbouw, Roelofarendsveen
(e-mail: c.marchenay@naktuinbouw.nl)

New Zealand

Jacqueline BROADHEAD (Ms.), Plant Variety Rights Examiner, Plant Variety Rights Office, Intellectual Property Office of New Zealand, Ministry of Economic Development, Christchurch
(e-mail: jacquie.broadhead@pvr.govt.nz)

POLAND

Marcin KRÓL (Mr.), Head of DUS Testing Department, Research Centre for Cultivar Testing (COBORU), Slupia Wielka
(e-mail: m.Krol@coboru.gov.pl)

Joanna GRUSZCZYŃSKA (Ms.), Deputy Head of DUS Testing Unit, DUS Testing Department, Research Centre for Cultivar Testing (COBORU), Slupia Wielka
(e-mail: j.gruszczynska@coboru.gov.pl)

Malgorzata FRANKOWSKA (Ms.), Senior DUS Expert, DUS Testing Department, Research Centre for Cultivar Testing (COBORU), Slupia Wielka
(e-mail: m.frankowska@coboru.gov.pl)

Angelika KACZMAREK (Ms.), Senior DUS Expert, DUS Testing Department, Research Centre for Cultivar Testing (COBORU), Slupia Wielka
(e-mail: a.kaczmarek@coboru.gov.pl)

Malgorzata WLOSZCZYK (Ms.), Senior DUS Expert, DUS Testing Department, Research Centre for Cultivar Testing (COBORU), Slupia Wielka
(e-mail: m.wloszczyk@coboru.gov.pl)

Portugal

Anabela ROCHA (Ms.), Senior expert, Plant Breeder Rights Office and National List, Divisão de Variedades e Sementes (DVS), Direção-Geral de Alimentação e Veterinária (DGAV), Lisboa
(e-mail: anabelarocha@dgav.pt)

REPUBLIC OF KOREA

Kwanghong LEE (Mr.), Agricultural Researcher, Korea Seed and Variety Service (KSVS), Gimcheon City
(e-mail: grin@korea.kr)

Yoon-Young KIM (Mr.), Researcher, Plant Variety Protection Division, National Forest Seed Variety Center (NFSV), Chungju
(e-mail: wildflower2@korea.kr)

Jonghee OH (Mr.), Research Scientist, Korea Seed & Variety Service (KSVS), Gyeongsangnam-do
(e-mail: jheeoh@korea.kr)

Dong-Jin PARK (Mr.), Researcher, National Forest Seed Variety Center (NFSV), Chungcheongbuk-do
(e-mail: djp0903@korea.kr)

Byeung-Hoon YANG (Mr.), Researcher, National Forest Seed Variety Center (KFSV), Chungcheongbuk-do
(e-mail: time1227@korea.kr)

Bo Kyoung YOON (Ms.), Assistant Officer, Korea Seed & Variety Service (KSVS), Gyeongsangnam-do
(e-mail: yoonbk63@korea.kr)

HyunWoo OH (Mr.), Jeju Branch Office, Korea Seed and Variety Service (KSVS), Jeju-do
(e-mail: blackbulle@naver.com)

Republic of moldova

Evghenia PARTAS (Ms.), Head of DUS Testing Department, State Commission for Crops Variety Testing of the Republic of Moldova, Chisinau
(e-mail: e.partas@cstsp.md)

Tatiana DUBIT (Ms.), Specialist, DUS testing Department, State Commission for Crops Variety Testing, Chisinau
(e-mail: tatiana.dubit@cstsp.md)

Romania

Teodor Dan ENESCU (Mr.), Counsellor, State Institute for Variety Testing and Registration (ISTIS), Bucarest
(e-mail: enescu\_teodor@istis.ro)

Elizabeta SAVA (Ms.), Head of Testing Department, State Institute for Testing and Registration of Varieties (ISTIS), Bucarest
(e-mail: eliza\_sava@istis.ro)

Diana BLEAU (Ms.), Senior Advisor, State Institute for Registration and Testing of Varieties (ISTIS), Bucarest
(e-mail: troian@istis.ro)

Gianina SIMION (Ms.), Counsellor, State Institute for Registration and Testing of Varieties (ISTIS), Bucarest
(e-mail: simion\_gianina@istis.ro)

Cristina MURESAN (Ms.), Guidance Counsellor, State Institute for Registration and Testing of Varieties (ISTIS), Bucarest
(e-mail: sibiu@istis.ro)

Victorita MARIN (Ms.), Responsible Winter Oilseed Rape, State Institute for Variety Testing and Registration (ISTIS), Bucarest
(e-mail: victorita\_chiriac@istis.ro)

Elena STOICA (Ms.), Agronom, State Institute for Registration and Testing of Varieties (ISTIS), Calarasi
(e-mail: dalga@istis.ro)

Traian BRESCAN (Mr.), DUS expert for sunflower, State Institute for Registration and Testing of Varieties (ISTIS), Bucarest
(e-mail: cogealac@istis.ro)

Aurel CRISTE (Mr.), Engineer, SALAJ
(e-mail: criste\_aurel@yahoo.com)

Cristina CUCU (Ms.), DUS Expert - Corn, State Institute for Registration and Testing of Varieties (ISTIS), Bucarest
(e-mail: ovidiu@istis.ro)

Mihai Robert NICOLAU (Mr.), DUS expert for wheat, State Institute for Variety Testing and Registration (ISTIS), Bucarest
(e-mail: robert\_m8\_mara@yahoo.com)

Constanta POPESCU (Ms.), small cereal expert, State Institute for Testing and Registration of Varieties (ISTIS), Bucarest
(e-mail: constanta\_popescu@istis.ro)

Russian Federation

Tatiana MAKEEVA (Ms.), Head, Department for Agricultural Crops, State Commission of the Russian Federation for Selection Achievements Test and Protection, Moscow
(e-mail: zerno@gossortrf.ru)

Slovakia

Ľubomir BASTA (Mr.), Head of DUS testing, Department of Variety Testing, Central Control and Testing Institute in Agriculture (ÚKSÚP), Spisské Vlachy
(e-mail: lubomir.basta@uksup.sk)

Marianna JAKUBOVA (Ms.), DUS and International Cooperation, Central Control and Testing Institute in Agriculture (ÚKSÚP), Bratislava
(e-mail: marianna.jakubova@uksup.sk)

Jana KOVACICOVA (Ms.), DUS Expert, Seed Manager of DUS testing, The Central Control and Testing Institute in Agriculture, Velke Ripnany
(e-mail: jana.kovacicova@uksup.sk)

Dominika MALÁ SVECOVÁ (Ms.), DUS Referent, Central Control and Testing Institute in Agriculture (ÚKSÚP)
(e-mail: dominika.mala@uksup.sk)

Monika PAVLATOVSKÁ (Ms.), DUS expert for Vegetables, Central Control and Testing Institute in Agriculture (ÚKSÚP), Nové Zámky
(e-mail: monika.pavlatovska@uksup.sk)

Veronika SZABÓ (Ms.), DUS expert for Sunflower, Variety Testing Department, Central Controlling and Testing Institute in Agriculture, Bratislava
(e-mail: veronika.szabo@uksup.sk)

Orsolya TAKÁCSOVÁ (Ms.), DUS expert of Maize, Variety Testing Department, Central Controlling and Testing Institute in Agriculture, Bratislava
(e-mail: orsolya.takacsova@uksup.sk)

South Africa

Donavon SONNENBERG (Mr.), Agricultural Scientist, Department of Agriculture, Land Reform and Rural development, Stellenbosch
(e-mail: DonovanS@Dalrrd.gov.za)

Lynette CROUKAMP (Ms.), Examiner, Division of Variety Control, Directorate: Genetic Resources, National Department of Agriculture, Land Reform & Rural Development, Pretoria
(e-mail: Lynettecroukamp@gmail.com)

Bontle Innocentia CHOANE (Ms.), Plant Examiner, Department of Agriculture, Forestry and Fisheries, Gezina
(e-mail: bontlec@dalrrd.gov.za)

Mashudu Thomas MAFENYA (Mr.), DUS Examiner, Directorate: Genetic Resources, Variety Control, Department of Agriculture, Land reform and Rural Development, Gezina
(e-mail: MafenyaM@Dalrrd.gov.za)

Maboki Jermy LEBOGANG PHALA (Ms.), Scientist Production, Department of Agriculture, Land Reform and Rural Development, Pretoria
(e-mail: LebogangP@dalrrd.gov.za)

Malerotho D. LEKOANE (Mr.), Scientist Production, Department of Agriculture, Land Reform and Rural Development, Pretoria
(e-mail: malerothol@dalrrd.gov.za)

Patricia MOTUPA (Ms.), Scientist Production, Department of Agriculture, Land Reform and Rural Development, Pretoria
(e-mail: PatriciaMOT@dalrrd.gov.za)

Xolani SIBOZA (Mr.), Scientist Production, Department of Agriculture, Land Reform and Rural Development, Pretoria
(e-mail: XolaniSi@dalrrd.gov.za)

Spain

Jesús JIMÉNEZ RUIZ (Mr.), Research technician, Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA-CSIC), Jerez de la Frontera
(e-mail: jruiz.jesus@inia.csic.es)

Natalia MARÍN MARTÍN (Sra.), DUS Maize Technique, Centro de ensayos de Sevilla, Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA), Sevilla
(e-mail: marin.natalia@inia.csic.es)

TÜRKIYE

Feyza KARAKAS ULEMA (Ms.), Engineer, General Directorate of Agricultural Research and Policies (TAGEM), Ankara
(e-mail: feyza.karakasulema@tarimorman.gov.tr)

uKRAINE

Nataliia HOLICHENKO (Ms.), Head, Department of International Cooperation and Support of the UPOV Council Representative, Ukrainian Institute for Plant Variety Examination, Kyiv
(e-mail: nataliia.holichenko@gmail.com)

Svitlana VASKIVSKA (Ms.), Head, Application Examination Department, Ukrainian Institute for Plant Variety Examination, Kyiv
(e-mail: sapfira\_vsv@ukr.net)

Nadiya LYNCHAK (Ms.), Senior Research Officer, International Cooperation Section, Ukrainian Institute for Plant Variety Examination, Kyiv
(e-mail: nadin\_chervak@ukr.net)

Nadia KUROCHKA (Ms.), Researcher, Ukrainian Institute for Plant Variety Exsamination, Kyiv
(e-mail: kurochka2310@gmail.com)

Svitlana LIKAR (Ms.), Expert, Development section of DUS Test Department, Kyiv
(e-mail: luzenko4991@ukr.net)

Alina NOSULIA (Ms.), DUS Expert, Ukrainian Institute for Plant Variety Examination, Kyiv
(e-mail: alinanosylya@i.ua)

Tetiana DUDKA (Ms.), DUS, Ukrainian Institute for Plant Variety Examination, Kyiv
(e-mail: Dudkat3@gmail.com)

UNITED KINGDOM

Margaret WALLACE (Ms.), Head of Agricultural Crop Characterisation, NIAB, Cambridge
(e-mail: margaret.wallace@niab.com)

Alex TALIBUDEEN (Mr.), Senior Technical Manager - DUS, Agricultural Crops Characterisation, NIAB, Cambridge
(e-mail: alex.talibudeen@niab.com)

Vanessa MCMILLAN (Ms.), Technical Manager, NIAB, Cambridge
(e-mail: vanessa.mcmillan@niab.com)

Heather CAMPBELL (Ms.), Variety Testing and Genetic Resources Manager, SASA, Edinburgh
(e-mail: Heather.Campbell@sasa.gov.scot)

Adam GAULEY (Mr.), Senior Scientific Officer, AFBINI, Belfast
(e-mail: Adam.Gauley@afbini.gov.uk)

UNITED REPUBLIC OF TANZANIA

Lawrence Yobu NDOSI (Mr.), Agricultural Officer, Ministry of Agriculture (MoA), Dodoma
(e-mail: lawrenceyobu@gmail.com)

Dorah Herman BIVUGILE (Ms.), Research Officer, Tanzania Official Seed Certification Institute (TOSCI), Morogoro
(e-mail: maydorah@gmail.com)

UNITED STATES OF AMERICA

Mark A. HERMELING (Mr.), Plant Variety Examiner, U.S. Plant Variety Protection Office, Minnetonka
(e-mail: mark.hermeling@usda.gov)

Uruguay

Virginia Roxana OLIVIERI GÓMEZ (Ms.), Coordinator, Variety Testing and Registration, Instituto Nacional de Semillas (INASE), Canelones
(e-mail: volivieri@inase.uy)

II. Observers

Greece

Alexandra CHATZIGEORGIOU (Ms.), Head, Variety Research Department of Cultivated Plants, Directorate of Propagating Material of Cultivated Plant Species and Plant Genetic Resources, Hellenic Ministry of Rural Development and Food, Sindos - Thessaloniki
(e-mail: varinst@otenet.gr)

Suriname

Rinette Ngatinem SOEROPAWIRO (Ms.), Acting Head Seed-Unit Division, Chair of the National Seed Board, Sub Directorate Agri-Health, Ministry of Agriculture, Animal Husbandry and Fisheries, Paramaribo
(e-mail: rinettesoeropawiro.lvv@gmail.com)

Santushadebie BHAGGOE (Ms.), Researcher, Ministry of Agriculture, Animal Husbandry and Fisheries, Paramaribo
(e-mail: santushabhaggoe@gmail.com)

Thailand

Kunyaporn PIPITHSANGCHAN (Ms.), Acting Expert, Ministry of Agriculture and Cooperatives, Rangsit
(e-mail: kunyapithsan@gmail.com)

Kanchana PRUESAPAN (Ms.), Agricultural Research Officer, Plant Varieties Protection Office, Department of Agriculture, Ministry of Agriculture and Cooperatives, Bangkok
(e-mail: kpruesapan@gmail.com)

III. ORGANIZATIONS

AFRICAN SEED TRADE ASSOCIATION

Justin J. RAKOTOARISAONA (Mr.), Secretary General, African Seed Trade Association (AFSTA), Nairobi, Kenya
(e-mail: justin@afsta.org)

CROPLIFE INTERNATIONAL

Marion LIMES (Ms.), Registration and Protection Specialist field crops, Syngenta, Saint-Sauveur, France
(e-mail: marion.limes@syngenta.com)

Euroseeds

Claudius MARONDEDZE (Mr.), Technical Manager Plant Health and Seed Trade, Euroseeds, Brussels, Belgium
(e-mail: claudiusmarondedze@euroseeds.eu)

Jared ONSANDO (Mr.), Technical Manager Variety Testing and Registration, Euroseeds, Brussels, Belgium
(e-mail: JaredOnsando@euroseeds.eu)

INTERNATIONAL COMMUNITY OF BREEDERS OF ASEXUALLY REPRODUCED HORTICULTURAL PLANTS (CIOPORA)

Sabrina ALCOFORADO GALE (Ms.), Junior Intellectual Property Lawyer, International Community of Breeders of Asexually Reproduced Horticultural Plants (CIOPORA), Hamburg, Germany
(e-mail: sabrina.gale@ciopora.org)

INTERNATIONAL SEED FEDERATION (ISF)

Emerson LIMBERGER, Technical Manager (Corteva Agriscience), Corteva Agriscence, Aussonne, France
(e-mail: emerson.limberger@corteva.com)

IV. Officers

Ľubomir BASTA (Mr.), Chair

V. OFFICE OF UPOV

Yolanda HUERTA (Ms.), Vice Secretary-General

Leontino TAVEIRA (Mr.), Director of Global Development and Technical Affairs

Kees VAN ETTEKOVEN (Mr.), Technical Expert

Romy OERTEL (Ms.), Secretary II

Jessica MAY (Ms.), Secretary I

[Annex II follows]

**DRAFT TEST GUIDELINES TO BE SUBMITTED
TO THE TECHNICAL COMMITTEE IN 2024**

All requested information to be submitted to the Office of the Union

**before July 12, 2024**

Full draft Test Guidelines

| Species | Basic Document(s) | Leading expert |
| --- | --- | --- |
| \*Hemp, Cannabis (*Cannabis sativa* L.) (Revision)  | TG/276/2(proj.3) | Ms. Lysbeth Hof (NL) |
| \*Zoysia Grasses (*Zoysia* Willd.) | TG/ZOYSI(proj.5) | Mr. Toru Watanabe (JP) |

**DRAFT TEST GUIDELINES TO BE DISCUSSED AT TWA/54**

**(\* indicates possible final draft Test Guidelines)**

Guideline date for Subgroup draft to be circulated by Leading Expert:  **February 7, 2025**

Guideline date for comments to Leading Expert by Subgroup:  **March 7, 2025**

New draft to be submitted to the Office of the Union

**before April 5, 2025**

The procedure for the introduction and revisions of Test Guidelines is provided in document TGP/7 “Development of Test Guidelines”, Section 2

Full draft Test Guidelines

| Species | Basic Document | Leading expert | Interested experts (countries/organizations)[[1]](#footnote-2)  |
| --- | --- | --- | --- |
| \*Bent (*Agrostis canina* L., *Agrostis gigantea* Roth, *Agrostis stolonifera* L., *Agrostis capillaris* L.) (Revision) | TG/30/7(proj.1) | Mr. Peter Hendriks (NL) | CZ, DE, FR, IT, JP, KE, NZ, QZ, CIOPORA, Euroseeds, ISF, Office |
| Couch Grass, Bermuda Grass (*Cynodon* Rich.) | New | Mr. Andrew Hallinan (AU) | BR, CN, FR, IT, JP, QZ, ZA, CIOPORA, Euroseeds, ISF, Office |
| \*Festulolium (×*Festulolium* Asch. et Graebn.) (Revision) | TG/243/2(proj.1) | Ms. Lydie Cechová (CZ) | DE, DK, FR, IT, JP, NL, NZ, QZ, UY, ZA, CIOPORA, Euroseeds, ISF, Office |
| \*Fodder Beet (*Beta vulgaris* Fodder Beet Group) (Revision) | TG/150/4(proj.2) | Ms. Anne-Lise Corbel (FR)  | DE, DK, ES, GB, JP, QZ, RO, ZA, CIOPORA, Euroseeds, ISF, Office |
| Grain Amaranth (*Amaranthus* L.) (Revision) | TG/247/2(proj.1) | Mr. Ľubomir Basta (SK) | DE, FR, HU, IT, JP, KE, NZ, QZ, ZA, CIOPORA, Euroseeds, ISF, Office |
| Mung Bean (*Vigna radiata* (L.) R. Wilczek) | TG/VIGNA\_RAD(proj.2) | Mr. Xiongfei Jiao (CN) | AR, AU, FR, JP, KR, QZ, CIOPORA, Euroseeds, ISF, Office |
| \*Sugarcane (*Saccharum* L.) (Revision) | TG/186/2(proj.5) | Mr. Ali Bhatti (AU) | AR, BR, CN, JP, KE, QZ, TZ, ZA, CIOPORA, ISF, Office |

Partial revisions

| Species | Basic Document | Leading Expert(s) | Interested Experts (State / Organization)1 |
| --- | --- | --- | --- |
| \*Maize (*Zea mays* L.) - Characteristics 24.1 and 24.2 - Addition of new characteristics Tassel: sterility of male flowers Secondary color of grain - addition of characteristic to TQ 5 | TG/2/7,TWV/58/4-TWA/53/4 | Ms. Cécile Marchenay (NL) | TWV, AR, AT, BR, CA, CN, CZ, DE, ES, FR, HU, IT, JP, KE, KR, MX, PT, QZ, RO, SK, TZ, ZA, CLI, CIOPORA, Euroseeds, ISF, Office |
| Sweet Potato (*Ipomoea batatas* (L.) Lam.)- Adding a new characteristic “Leaf blade: anthocyanin coloration of nectary”- Adding a new shape to “Storage root: shape”- Adding new colors to “Storage root: main color of flesh”- Revision of example variety for char. 23 | TG/258/1 | Mr. Toru Watanabe (JP) | CA, GB, HU, KR, NL, QZ, ZA, CIOPORA, Office |

Draft Test Guidelines for possible future discussion

| Species |  Basic Document(s) | Possible Leading Expert |
| --- | --- | --- |
| Common Millet (*Panicum miliaceum* L.) (Revision) | TG/248/1  | AT |
| Turnip Rape (*Brassica rapa* L. var. *silvestris* (Lam.) Briggs.) (Revision) | TG/185/3 | FR |
| White Mustard (*Sinapis alba* L.) (Revision) | TG/179/3 | DE |

[End of Annex II and of document]

1. for name of experts, see list of participants [↑](#footnote-ref-2)