UPOV

International Union for the Protection of New Varieties of Plants

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Technical Working Party for Agricultural Crops **TWA/49/7**

Forty-Ninth Session
Saskatoon, Canada, June 22 to 26, 2020

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REPORT

Adopted by the Technical Working Party for Agricultural Crops

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Opening of the session

1. The Technical Working Party for Agricultural Crops (TWA) held its forty-ninth session, hosted by Canada and organized via electronic means, from June 22 to 26, 2020. The list of participants is reproduced in Annex I to this report.

2. In the absence of Ms. Cheryl Turnbull (United Kingdom), Chairperson of the TWA, the session was opened by Ms. Beate Rücker (Germany) who welcomed the participants. The TWA session was chaired by Ms. Rücker.

3. The TWA was welcomed by Mr. Anthony Parker, Commissioner, Plant Breeders' Rights Office, Canadian Food Inspection Agency (CFIA).

4. The TWA received a presentation by Mr. Anthony Parker, Commissioner, Plant Breeders' Rights Office, CFIA, on plant variety rights in Canada. A copy of the presentation is provided in Annex II to this report.

Adoption of the agenda

5. The TWA adopted the agenda as reproduced in document TWA/49/1 Rev. 2.

Short Reports on Developments in Plant Variety Protection

(a) Reports on developments in plant variety protection from members and observers

6. The TWA noted the information on developments in plant variety protection from members and observers provided in document TWA/49/3 Prov. The TWA noted that reports submitted to the Office of the Union after June 17, 2020, would be included in the final version of document TWA/49/3.

(b) Reports on developments within UPOV

7. The TWA received a presentation from the Office of the Union on latest developments within UPOV, a copy of which is provided in document TWA/49/2.

Development of TGP and information (INF) documents

8. The TWA considered documents TWP/4/1 “TGP and INF series documents” and TWA/49/6 “Comments on TGP documents”.

Matters for adoption by the Council in 2020

9. The TWA noted the matters concerning documents TGP/5, TGP/7, TGP/14, TGP/15, UPOV/INF/12, UPOV/INF/16 and UPOV/INF/22 to be proposed for adoption by the Council at its fifty-fourth ordinary session,

to be held in Geneva on October 30, 2020, subject to approval by the CAJ, at its seventy-seventh session, to be held in Geneva on October 28, 2020.

Possible future revisions of TGP documents and information documents

10. The TWA noted the matters concerning possible future revision of document TGP/8 and information document UPOV/INF/17, which would be considered under documents TWP/4/10, TWP/4/11 and TWP/4/7, respectively.

New proposals for revisions of TGP documents and information documents

TGP/7: Development of Test Guidelines

Links to relevant TGP documents guidance in Test Guidelines

11. The TWA noted the invitation to the TWPs to propose relevant guidance in TGP documents that could have links displayed in Test Guidelines.

12. The TWA agreed with the TWO, at its fifty-second session, that the following links should be considered for inclusion in Test Guidelines:

- Chapter 4.1.3 “Clear Differences” - link to document “General Introduction” (document TG/1/3);

- Chapter 4.2 “Uniformity” – links to documents “General Introduction” (document TG/1/3) and TGP/13 “Guidance for new types and species” for advice on using the Test Guidelines for varieties with other types of propagation;

- Chapter 5.4 “Guidance for the use of grouping characteristics” - links to documents “General Introduction” (document TG/1/3) and TGP 9 “Examining Distinctness”.

- Chapter 8.2 “Explanations for individual characteristics” - link to document TGP 14 “Glossary of terms used in UPOV documents”, section 2: Botanical terms, to avoid inconsistencies between Test Guidelines in relation to explanations for simple characteristics.

13. In relation to the link provided for Chapter 4.2, the TWA agreed that the following additional link should be considered for inclusion in Test Guidelines:

- Chapter 4.2 “Uniformity” – link to document TGP/8, Part II, relevant to the specific Test Guidelines.

Procedure for partial revision of UPOV Test Guidelines

14. The TWA noted discussions on the procedure for partial revision of Test Guidelines.

Development of document UPOV/INF/23 “UPOV Code System”

15. The TWA noted that the CAJ, at its seventy-seventh session, to be held in Geneva on October 28, 2020, would consider draft document UPOV/INF/23 “UPOV Code System”.

Program for the development of TGP documents and information documents

16. The TWA noted the program for the development of TGP documents and information documents, as set out in document TWP/4/1 Annexes V and VI, respectively.

TGP/8: Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability

Data processing for the production of variety descriptions for measured quantitative characteristics

17. The TWA considered document TWP/4/10.

18. The TWA considered the different approaches to convert observations into notes for producing variety descriptions for measured quantitative characteristics, as presented in document TWP/4/10, Annexes III to VII.

19. The TWA agreed that all mentions to “Adjusted Full Assessment Table (FAT)” in document TWP/4/10, Annex II, should be amended to read "Adjusted Fundamental Assessment Table (FAT)".

20. The TWA noted that the document provided a summary of approaches developed for different testing conditions and agreed that it would not be necessary to request further information to facilitate their application at this stage.

The Combined Over Years Uniformity Criterion (COYU)

21. The TWA considered document TWP/4/11.

22. The TWA agreed that the COYU method was frequently used in the examination of agricultural crops and thanked the experts from the United Kingdom for the improvements to the method of calculation and its implementation in a new COYU package.

23. The TWA noted the invitation by the TWC for members who use “R” or “DUST” Software to review the new COYU package to identify possible improvement points.

24. The TWA noted the expression of interest by experts from China, Finland, France and the United Kingdom to review the new COYU package.

25. The TWA noted the invitation for editorial suggestions to be communicated to the drafter from the United Kingdom on the proposed draft revision for document TGP/8, Section 9 “The Combined Over Years Uniformity Criterion (COYU)”.

26. The TWA noted the invitation for the expert from the United Kingdom to prepare a revised version of the draft guidance, to be presented to the TWC, at its thirty-eighth session.

Information and databases

(a) UPOV information databases

27. The TWA considered document TWP/4/4.

UPOV Code System

UPOV code developments

28. The TWA noted that 208 new UPOV codes had been created in 2019 and a total of 9,049 UPOV codes are included in the GENIE database.

Exceptions to UPOV codes in the “Guide to the UPOV Code System”

29. The TWA noted that the TC, at its fifty-fifth session, had agreed to postpone the amendment to the “Guide to the UPOV Code System” and to explore alternative solutions to enable UPOV Codes to provide useful information on variety groups or types for DUS testing purposes and to invite the Office of the Union to prepare a document with proposals, for consideration at its fifty-sixth session.

30. The TWA noted the developments concerning alternative solutions to enable UPOV Codes to provide useful information on variety groups or types for DUS testing purposes.

31. The TWA agreed that the introduction of a fourth element to UPOV Codes could be considered as an alternative to provide information on variety groups. The TWA agreed that the TWPs could provide the required information for the establishment of groups for the relevant crops.

New proposals for updating UPOV codes

UPOV codes for Beta vulgaris

32. The TWA considered the proposal to amend the UPOV codes for *Beta vulgaris,* as set out in document TWP/4/4, Annex II. The TWA noted that the proposal would classify different horticultural crops as synonyms under the same taxa, such as beetroot, leaf beet, turnip, turnip rape, sugar beet and fodder beet. The TWA agreed that it would not be appropriate to delete the UPOV codes proposed before a solution was provided to avoid the loss of information on variety groups.

UPOV code amendments agreed by the TC at its fifty-fifth session

33. The TWA noted that the TC, at its fifty-fifth session, had agreed to amend the UPOV codes for the genera and species set out in document TWP/4/4, Annex IV.

TWP checking

34. The TWA noted the invitation to check the amendments, new UPOV codes or information, and UPOV codes used in the PLUTO database for the first time, as reproduced in document TWP/4/4, Annex V, and submit comments to the Office of the Union by December 31, 2020.

ISTA Nomenclature Committee

35. The TWA noted that the "ISTA List of Stabilized Plant Names" with relevant UPOV codes had been published in January 2020.

"Plavarlis project - UPOV codes"

36. The TWA received a presentation on "Plavarlis project - UPOV codes" by an expert from the European Union. A copy of the presentation is provided in document TWA/49/4.

PLUTO database

Program for improvements to the PLUTO database

37. The TWA noted that the TC and the CAJ, at their sessions in 2019, had approved the revision of the "Program for improvements to the PLUTO database" to reflect the change of the acceptable character set to accept accents and special characters in denominations in the PLUTO database (ISO/IEC Standard 8859 1: 1998).

Summary of contributions to the PLUTO database from 2016 to 2019

38. The TWA noted the summary of data contributions from members of the Union to the PLUTO database from 2016 to 2019, as presented in document TWP/4/4, Annex VI.

(b) Variety description databases

39. The TWA considered document TWP/4/2.

40. The TWA noted the reports made at the BMT meeting on databases containing morphological and/or molecular data.

41. The TWA noted that members of the Union had been invited to report to the TWPs on work concerning the development of databases containing morphological and/or molecular data.

42. The TWA noted the report from the Netherlands on the development of SNP markers for fiber and non-fiber hemp, with the aim of setting up a database for managing the variety collection.

(c) Exchange and use of software and equipment

43. The TWA considered document TWP/4/5.

Document UPOV/INF/16 “Exchangeable Software”

44. The TWA noted that the Office of the Union had issued on April 14, 2020, Circular E-20/031 inviting the designated persons of the members of the Union in the TC to provide or update information regarding the use of the software included in document UPOV/INF/16.

Document UPOV/INF/22 “Software and equipment used by members of the Union”

45. The TWA noted that the Council, at its fifty-third ordinary session, held in Geneva, on November 1, 2019, had adopted document UPOV/INF/22/6 “Software and equipment used by members of the Union”.

46. The TWA noted that the Office of the Union had issued on April 14, 2020, Circular E-20/031 inviting the designated persons of members of the Union in the TC to provide or update information in document UPOV/INF/22.

47. The TWA noted that the TC, at its fifty-sixth session, would be invited to consider whether to include any proposed software or equipment in document UPOV/INF/22 or whether to request further guidance from other relevant bodies.

Availability of documents UPOV/INF/16 “Exchangeable software” and UPOV/INF/22 “Software and equipment used by members of the Union” in a searchable form

48. The TWA noted that the information in documents UPOV/INF/16 and UPOV/INF/22 had been made available in a searchable format on the UPOV website.

(d) UPOV PRISMA

49. The TWA considered document TWP/4/3 and noted the developments concerning UPOV PRISMA.

50. The TWA noted the remarks by CropLife International, Euroseeds, the International Seed Federation and the Seed Association of the Americas, who welcomed the continuous improvements to UPOV PRISMA in terms of the number of participating authorities, crop coverage and new functionalities. The TWA noted their appreciation for the initiative by the United Kingdom to pay the UPOV PRISMA fee on behalf of the applicants and their encouragement of similar measures by other participating authorities to promote further applications and the submission of data using the tool.

Experiences with new types and species

51. No experiences with new types and species were reported at the session.

Molecular techniques

52. The TWA considered document TWP/4/7.

53. The TWA noted the comment from CropLife International, Euroseeds, International Seed Federation and Seed Association of the Americas that the use of molecular techniques should be encouraged as far as authorities could continue to mutually recognize test results and take-over DUS test reports.

Developments at the eighteenth session of the Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular

54. The TWA noted the papers presented at the eighteenth session of the BMT, held in 2019, as set out in document TWP/4/7, paragraph 12.

55. The TWA noted that the BMT would hold its nineteenth session, jointly with TWC, during the week of September 21, 2020.

56. The TWA noted the draft agenda for the BMT at its nineteenth session, to be held in 2020, as set out in document TWP/4/7, paragraph 14.

Revision of document UPOV/INF/17 "Guidelines for DNA-Profiling: Molecular Marker Selection and Database Construction ('BMT Guidelines')"

57. The TWA noted the proposal by the TWV for the BMT to develop guidance in document UPOV/INF/17 on elements to be included in a protocol of a DNA marker assay for a specific characteristic.

58. The TWA noted the changes agreed by the BMT to document UPOV/INF/17, as reproduced in document TWP/4/7, Annex II.

59. The TWA noted that the TC had agreed to invite the European Union, France and the Netherlands to prepare a new draft of document UPOV/INF/17 for consideration of the BMT, at its nineteenth session.

Cooperation between international organizations

Inventory on the use of molecular marker techniques, by crop

60. The TWA noted that the TC, at its fifty-fifth session, had agreed the elements for the inventory on the use of molecular marker techniques, by crop, as set out in document TWP/4/7, paragraph 40.

61. The TWA noted that a circular would be issued to request members of the Union to complete a survey as a basis to develop an inventory on the use of molecular marker techniques, by crop, in coordination with the OECD.

Lists of possible joint initiatives with OECD and ISTA in relation to molecular techniques

62. The TWA noted that that the TC, at its fifty-fifth session, had agreed:

(a) for joint OECD, UPOV, ISTA workshops to be repeated in future, as a possible joint initiative in relation to molecular techniques;

(b) to propose a joint initiative that each organization inform the others about use of molecular markers in their work; and

(c) that information from the survey on the techniques could help to clarify techniques that were considered to be biochemical or molecular.

Joint document explaining the principal features of the systems of OECD, UPOV and ISTA

63. The TWA noted that that the TC, at its fifty-fifth session, had agreed that relevant elements from the World Seed Partnership and the FAQ on the use of molecular techniques in the examination of DUS, would be a suitable basis for the Office of the Union to develop a draft of a joint document explaining the principal features of the systems of OECD, UPOV and ISTA, in consultation with OECD.

Session to facilitate cooperation in relation to the use of molecular techniques

64. The TWA noted that the TWPs and BMT, at their sessions in 2019, had formed discussion groups to allow participants to exchange information on their work on biochemical and molecular techniques and explore areas for cooperation.

65. The TWA noted the outcomes of discussions at the TWPs and BMT on facilitating cooperation in relation to the use of molecular techniques, as presented in document TWP/4/7, Annex IV.

Presentation on the use of molecular techniques in DUS examination

66. The TWA received a presentation on "Developing a strategy to apply SNP molecular markers in the framework of winter Oilseed rape DUS testing" from an expert from France. A copy of the presentation is provided in document TWA/49/5. The TWA agreed to invite France to report on developments on the project at its fiftieth session.

Variety denominations

67. The TWA considered document TWP/4/6.

Possible revision of document UPOV/INF/12 "Explanatory Notes on Variety Denominations under the UPOV Convention"

68. The TWA noted that the TC, at its fifty-fifth session, agreed to propose to revise the list of classes in document UPOV/INF/12/5:

(a) to split the current class 205 into two new classes: one for Endive and Salad Chicory, and another for Industrial Chicory;

(b) to add genus *Epichloe* to Class 203 (*Agrostis, Dactylis, Festuca, Festulolium, Lolium, Phalaris, Phleum* and *Poa*).

Working Group on Variety Denominations

69. The TWA noted developments in the WG-DEN, at its sixth meeting, and the CAJ, at its seventy-sixth session, concerning a possible revision of document UPOV/INF/12 "Explanatory Notes on Variety Denominations under the UPOV Convention", as set out in document TWP/4/6, paragraphs 13 to 20.

Revision of the ninth edition of the ICNCP

70. The TWA noted that the Office of the Union would contribute to the revision of the ninth edition of the ICNCP on the basis of document UPOV/INF/12/5 and the work of the WG-DEN.

Possible development of a UPOV similarity search tool for variety denomination purposes

71. The TWA noted developments concerning a UPOV similarity search tool for variety denomination purposes, as set out in document TWP/4/6, paragraph 26.

Expansion of the content of the PLUTO database

72. The TWA noted that the CAJ, at its seventy-sixth session, had noted plans for the introduction of a unique identifier for variety record in the PLUTO database.

73. The TWA noted that the CAJ, at its seventy-sixth session, had agreed with the proposal to add common names in other languages to the PLUTO database.

Working group on variety denominations

74. The TWA noted that the CAJ, at its seventy-sixth session, had noted that there was no need for further meetings of the WG-DEN.

International cooperation in examination

75. The TWA considered document TWP/4/9.

Identification of contact persons for international cooperation in DUS examination

76. The TWA noted the list of persons to be contacted for matters concerning international cooperation in DUS examination, provided in document TWP/4/9, Annex I, and on the UPOV website.

77. The TWA noted that UPOV members would be invited to update information on a person(s) to be contacted for matters concerning international cooperation in DUS examination every year when invited to provide information for document TC/[xx]/4 "List of genera and species for which authorities have practical experience in the examination of distinctness, uniformity and stability".

Proposals to overcome technical concerns in relation to cooperation

78. The TWA noted that the TC, at its fifty-fifth session, had considered the outcomes of discussions held at the TWPs and the proposals to address the concerns raised, as set out in document TWP/4/9, Annex II.

79. The TWA noted the synthesis of concerns and proposals by the TWPs, as set out in document TWP/4/9, paragraph 19.

80. The TWA noted that the Office of the Union would prepare a coherent plan for consideration by the TC, at its fifty-sixth session, based on the proposals in document TWP/4/9, paragraph 20, to address the concerns raised by the TWPs and to propose how to assess the impact of the plan.

81. The TWA noted there were questions from participants on some of the proposals and agreed that it would not be appropriate to comment at this stage due to the lack of information on implementing measures.

82. The TWA noted that the TC had agreed that TWP sessions should be used to develop cooperation among members to a greater extent.

Organization of work of the TWC and BMT

83. The TWA considered document TWP/4/12.

84. The TWA noted the draft terms of reference for a possible single body to encompass the work of the TWC and BMT.

85. The TWA expressed appreciation for the work on biometrical methods developed by the TWC and that of the BMT for the development of potential applications of molecular techniques to DUS testing. The TWA agreed these activities should be promoted and continued.

Revision of Test Guidelines

86. The TWA considered document TWP/4/13.

Technical Questionnaires

87. The TWA noted that UPOV members at the TWPs would be invited to complete the table with information on the use of the Technical Questionnaire from UPOV Test Guidelines, as provided on the website, and return it to the Office of the Union by August 1, 2020 (table available at the following website: https://www.upov.int/meetings/en/details.jsp?meeting_id=55672).

Additional characteristics and states of expression in individual authorities' Test Guidelines

88. The TWA noted that UPOV members at the TWPs had been invited to notify additional characteristics and states of expression to the Office of the Union using the tables provided in document TGP/5 Section 10.

Additional characteristics and states of expression notified to the Office of the Union

89. The TWA considered the additional characteristics notified to the Office of the Union, as reproduced in document TWP/4/13, Annex I.

90. The TWA agreed that, at present, the additional characteristics should not be posted on the TG Drafters' webpage of the UPOV website.

Guidance for drafters of Test Guidelines

91. The TWA considered document TWP/4/8.

92. The TWA noted developments on the web-based TG template, reported in document TWP/4/8, paragraphs 15 to 23.

93. The TWA noted that the Office of the Union would issue a circular to identify requirements of UPOV members for the development of individual authorities' test guidelines using the web-based TG template.

94. The TWA noted that training on the web-based TG template via electronic means could be organized upon experts' request.

Discussion on draft Test Guidelines

*Potato (*Solanum tuberosum *L.) (Revision)*

95. The subgroup discussed document TG/23/7(proj.1), presented by Ms. Beate Rücker (Germany), and agreed the following:

2.3	minimum quantity of plant material, to be supplied by the applicant, to be indicated as "100 tubers for each growing cycle"
Chars. 5 and 9	to have states from (1) absent or very sparse to (9) very dense
Char. 14	to read "Stem: intensity of anthocyanin coloration"
Char. 19	- to read "Leaf: intensity of anthocyanin coloration of midrib" - to move "on upper side" to explanation in Chapter 8.2
Char. 22	to read "Flower bud: intensity of anthocyanin coloration"
Char. 25	to read "Peduncle: intensity of anthocyanin coloration"
Char. 28	state 1 to read "absent or low"
Char. 32	- to check whether to read "Tuber: width/length ratio" with states from "low" to "high" - to add MS
Char. 34	- to check whether to add new states "white" and "yellowish brown" - state 8 to read "blue violet" - state 9 to read "blue violet parti-colored" - to replace "beige" with appropriate color
Char. 35	to add explanation that this characteristic is useful to distinguish russet varieties
Char. 37	- state 8 to read "blue violet" - state 9 to read "blue violet parti-colored" - to replace "cream" with appropriate color
Ad. 32	to be improved for better distinction of states
Ad. 36	to read "note 7 and 9"

*Rape Seed (*Brassica napus *L.* oleifera*) (Revision)*

96. The subgroup discussed document TG/36/7(proj.1), presented by Ms. Margaret Wallace (United Kingdom), and agreed the following:

Cover page	to add English common name "Canola"
Table of Chars.	to check whether to add new characteristics: - "Flower: petal spacing" with states "open", "not touching", "touching", "overlapping", "strongly overlapping" with notes 1 to 9 - "Siliqua: attitude" with states (1) erect; (3) semi erect; (5) horizontal, (7) semi dropping, (9) drooping and explanation (angle joining the pedicel to the pod)
Char. 2	- to have states from "low" to "high" (for all ratio characteristics) - to delete MG - to check number of cotyledon characteristics
Chars. 5, 7, 8	to delete MG
Char. 9	to be deleted
Char. 10	to read "Leaf: intensity of green color"
Char. 12	to be deleted
Char. 14	to add explanation for leaf characteristics observed for single plants indicated as MS ("Observations on the leaf should be made on the largest, fully expanded lower leaf showing no indication of senescence.")
Chars. 16 to 18	- to check whether to be deleted - to be indicated as MS

New Char. after 18	- to check whether to add char. “Time of beginning of elongation” - to be indicated as QN and MG - to have growth stage 31 - to have notes 1 to 9
Char. 20	to add growth stage 62-63
Char. 23	- to add illustration - to have states from “low” to “high” (ratio)
Char. 25	to have growth stage 70-80
Chars. 26 to 30	to add illustration
Chars. 29, 30	to be moved after Char. 26
Char. 30	to have states from “low” to “high” (ratio)
8.1	to add illustrations and delete “Picture required”
Ad. 1	to read “ … the ISO standard in document 12966-4 2015, paragraph 6.2.2.1. Seed containing 2% or less would be classified as ‘low’ whereas seed containing more that 2% would be classified as ‘high’.”
Ad. 2	to add illustration for ratio
Ads. 14, 15	to add illustrations
Ad. 25	to read “The measurement should be taken from the base of the plant to the tip of the longest shoot. To measure the longest shoot, all side shoots should be raised to a vertical orientation.”
Ad. 26	to check whether to read “To be measured between pedicel and beak.”
8.3	to add growth stage key
TQ 4.1.4 and 4.2	- to delete MSL and Ogura and add CMS and GMS - to add details for hybrids - to check whether whether to add wording „For each parent line, in separate sheets, the information according to the following chapter 5 to 7 to be added” as in current adopted version
TQ 5	to add full scale of notes for QN characteristics
TQ 6	to add an example
TQ 7.3	to delete “Miscellaneous information”

**Rice* (Oryza sativa *L.*) *(Revision)*

97. The subgroup discussed document TG/16/9(proj.4), presented by Mr. Kohei Imamura (Japan), and agreed the following:

3.4.1	- to read “In the case of sowed trials, each test should be designed to result in a total of at least 1500 plants, which should be divided between at least 2 replicates.” - to add a new paragraph to read “In the case of transplanted plantlets, each test should be designed to result in a total of at least 400 plants, which should be divided between at least 2 replicates.”
4.2.5	B to read “sample size of 1500 plants/400 plants”
4.2.6	- acceptance probability to be indicated as at least 95% - to add a new paragraph to read “For the assessment of uniformity in a sample of 400 plants, a population standard of 0.1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 400 plants, 2 off-types are allowed.”
4.2.7	to read “... population standard of 1 % and an acceptance probability of ...”
4.2.8	second paragraph to read “For the assessment of uniformity of hybrid varieties, a population standard of 1% and an acceptance probability of at least 95% should be applied.” and delete rest of paragraph

Table of Chars.	- to have one harmonized set of example varieties, compared in same growing conditions, in the table of characteristics to delete the following example varieties throughout the draft: “Castelmochi”, “Bahia”, “Puntal”, “Ariete”, “Thaibonnet”, “Guadiamar”, “Vialone Nano”, “Galatxo”, “Bomba”, “Calca”, “San Andrea”, “Aychade”, “Giglio”, “Lampo”, “Leda”, “Loto”, “Baldo”, “Carnaroli”, “Manobi”, “Puebla”, “Lido”, “Thainato”, “Lemont”, “Calca”, “Tamarin”, “Veta”, “Riege”, “Senia”, “Tiber”, “Gladio”, “Carnise”, “Gigante Vercelli”, “Arborio”, “Gange”, “Tarrisio”, “Albatros”, “Fonsa”, “Elio”, “Roncolo”, “Bertone”, “Violet Nori”, “Balilla”, “Sarcet”, “Milagrosos”, “Castel”, “Maso”, “Nano”, “Senia”, “Risrus”, “Arome”, “Delmar” - additional sets of regional example varieties to be added at a later stage, if appropriate
Char. 18	to add (*)
Char. 28	to add (*)
Char. 33	- to be indicated as MG/B - growth stage to be indicated as 90
Char. 34	to add (*)
Char. 40	to add (*)
Char. 43	to have states (1) absent or very weak; (2) weak; (3) moderate; (4) strong
8.1 (b)	to delete (b)
8.1 (c)	to read “Observations should be made after removal of husks.”
Ad. 4	quality to be improved
Ad. 13	to read “Length and width should be assessed on the same leaf blade. Length should be measured from the tip to the base. Width should be measured at the widest part.”
Ad. 18	to read “Observations should be made at ...”
Ads. 19, 20	to be deleted
Ad. 31	quality to be improved
Ad. 32	to read “Time of maturity is reached when 80% of the grains in a panicle can no longer be dented by thumbnail.”
Ad. 33	- to delete first sentence - to read: 1 – early: All leaves are dead. 2 – medium: One leaf is still green. 3 – late: More than one leaf is still green.
Ad. 35	to read “Place hulls from grains into a petri dish, and add 1.5% phenol solution...”
Ad. 43	- first sentence to read “Put milled complete (unbroken) rice grains…” - to update states and notes according to changes to Char. 43
TQ 4.1	to use full standard breeding scheme

**Rye* (Secale cereale *L.*) *(Revision)*

98. The subgroup discussed document TG/58/7(proj.2), presented by Ms. Beate Rücker (Germany), and agreed the following:

4.2.2	to read “These Test Guidelines have been developed for the examination of open pollinated varieties, hybrid varieties (excluding single crosses from inbred lines), synthetic varieties, inbred lines and single crosses from inbred lines. …”
Char. 8	remove dash in “emer-gence”
Char. 9	remove dash in “glau-cosity”
Ad. 2	“20o C” to read “20 °C”
Ad. 3	to be presented in a table as Ad. 2
TQ 4.1	to use complete standard breeding scheme

**Soya Bean (*Glycine max *(L.) Merrill) (Revision)*

99. The subgroup discussed document TG/80/7(proj.6), presented by Mr. Alberto Ballesteros (Argentina), and agreed the following:

Table of Chars.	- to order characteristics according to growth stages - to have one harmonized set of example varieties, compared in same growing conditions, in the table of characteristics; additional sets of regional example varieties to be added at a later stage, if appropriate
Char. 2	to read “Time of beginning of flowering”
Char. 3	- to have states (1) extremely early; (2) extremely early to very early; (3) very early; (4) very early to early; (5) early; (6) early to medium; (7) medium; (8) medium to late; (9) late; (10) late to very late; (11) very late; (12) very late to extremely late; (13) extremely late - to check whether to include equivalence table to other “maturity group” systems as explanation in Chapter 8.2
Char. 6	to read “Plant: color of hairs on main stem”
Char. 7	to delete example varieties “Sigalia” and “Es Mentor”
Char. 9	to keep order of states as in current adopted version and add same illustration
Char. 13	to correct spelling of “light”
Chars. 14 to 21	to check whether observed on submitted or harvested material for all seed characteristics
Char. 15	- to read “Seed: shape” - to have same states as in current adopted version - to check whether to add illustration
Char. 17	to add explanation to read “A lot of 20 seeds in a square of ten by ten, are illuminated with a focus of no more than 75 watts and the brightness or opacity is observed with the naked eye.”
Char. 19	to correct spelling of example variety “Srielia” to “Sirielia”
Ad. 2	to read “Time of beginning of flowering is reached when 10% of plants show at least one open flower.”
Ad. 3	to read “Time of maturity is reached when 90% of plants have reached growth stage 80.”
Ad. 4	to check whether definition of states to read “Determinate growth habit is when the terminal bud ends its growth at the beginning of flower. All the floral raceme bloom almost at the same time. Most of nodes are formed at that period and there is no change in height after that. Indeterminate growth habit is when after beginning to flower, still continuous his vegetative grow, and the flowers and height didn´t reach indeterminate genotypes keep his vegetative growth upward at the tip of the stem for several weeks after flowering begins further down the stem. The upper nodes will flower later. Indeterminate genotypes are also recognized because their final height and the total number of nodes on the main stem are reached at the end of the maturity period. The lower flower clusters start before the upper ones and the final trifoliate leaf is smaller than the rest. Semi determinate cultivars have indeterminate type of stem and his vegetative grow keep after beginning of flower but ends after the flowering time.”
Ad. 18	- to read “The seed coat should be placed in a cell box or in tubes (one tube per seed) and 3 to 4 cm^3 of 0.5% Guayacol (or another reagent might be used…” - to read “… 0.1% H_2O_2 solution …” - to read “… 0.5% Guaycacol solution…” - to read “… after the H_2O_2 was added…”
8.2	- growth stages 1.10, 2.20 and 221 to read “States continuous until…” - growth stages 80-89: 2 digital numbers to be added
TQ 4.1	to use complete standard breeding scheme
TQ 5.6	Char. 18 to be deleted from TQ
Annex	to be deleted (see comment on Table of Chars.)

100. The TWA noted the comments of CropLife International, Euroseeds, International Seed Federation and Seed Association of the Americas about the slow progress with regards to the revision of the Test Guidelines for Soybean. CropLife International, Euroseeds, International Seed Federation and Seed Association of the Americas reported that the adoption of revised Test Guidelines for Soybean was desperately needed because

of the continuous growth in the number of varieties, especially in South America, and the increasing difficulties in examining these new varieties.

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

101. The subgroup discussed document TG/186/2(proj.1), presented by Mr. Tanvir Hossain (Australia), and agreed the following:

Table of Chars.	- to update and add missing example varieties - to add Char. 14 “Internode: depth of growth crack” from the current adopted version with 5 notes - to check whether to add “Time of maturity” at the end of the table of chars. with states from “early” to “late”; without (*)
Char. 9	- to add explanation to read “After three days of exposure to the sun on a culm on which the wax has been removed.” - to add “purple” and to check whether more colors to be added
Char. 10	- to add “purple” and to check whether more colors to be added - to add explanation to read “On a culm protected from the sun, on which the wax has been removed.”
Char. 11	to add MS
Char. 12	Should the diagram in 8.2 Ad 12 indicate location of the buds? Perhaps bud location on alternate sides of the culm should be indicated?
Chars. 14, 15	- to add explanation to read “Observations should be made on the longest internode.” - to check whether to be deleted
Char. 16	to add VG
Char. 18	to be indicated as QN and VS
Char. 19	to be indicated as QL
Char. 21	- to delete (*) and add VG - to add explanation to read “To be observed excluding the bud wings.”
Char. 22	- to delete (*) - to add explanation to read “To be observed excluding the bud wings.”
Char. 32	- to have states (1) only lateral; (2) lateral and dorsal; (3) only dorsal - to be indicated as PQ
Char. 33	- to add state (5) asymmetrical, steeply sloping with example varieties “Vertix 1, Vertix 7” - to add state (6) asymmetrical, horizontal with example variety “IACSP942094”
Chars. 35, 36, 37	to delete (*)
Chars. 35, 36	to delete “(group 61)” and add (c)
Char. 41	to add (*)
Char. 42	to add MS
Char. 47	- to add MS - state “long” to have note 7
8.1	to add new explanation “Observation should be made on the longest internode” for Chars. 7 to 10, 13, 17, 20, 26, 27, 28
8.1 (a)	to be improved: - internode to be indicated from leaf scar to leaf scar - node to be indicated from growth ring to leaf scar - leaf scar to be indicated pointing to line below bud (above wax ring) - to add indication of growth ring, bud cushion, growth crack
Ad. 6	to read “Observations should be made at central part of the internode on the axis going through the bud.”
Ad. 12	to be improved to show the position of the buds
Ad. 41	to make reference to Char. 38 instead of 34

*Sunflower (*Helianthus annuus *L.) (Revision)*

102. The subgroup discussed document TG/81/7(proj.2), presented by Mr. Zoltán Csűrös (Hungary), and agreed the following:

4.1.4	ok with 36 plants
4.2	to correct numbering of last paragraphs
4.2.2	to read "… for the examination of seed propagated varieties…"
5.3	to correct the words production (g) and between (k)
Char. 1	to replace current example variety for state 3 with "TRC3285"
Char. 2	to have notes 1, 3, 5
Char. 5	to have notes 1, 3, 5
Char. 6	to add example variety "FR81013" for state 2
Char. 7	- to delete example variety "IR79DMR" from state 5 - to add example variety "RHA299" for state 9
Char. 10	to be deleted
Char. 11	to replace current example variety for state 7 with "IA1169DMR"
Char. 13	- to read "Ray floret: attitude of base in relation to head" - to delete example variety "T0833HG" from state 3 and replace with a different one
Char. 14	- to check whether to add illustrations - to read "Ray floret: attitude"
Char. 17	to check whether to reduce scale to 5 notes
Char. 18	to check whether variegated varieties for agricultural use exist
Char. 20	to correct spelling of "anthocyanin coloration"
Char. 21	to correct spelling of "production"
Char. 23	to have notes 1, 3, 5
Char. 24	to check whether to reduce scale to 3 notes
Char. 30	to replace current example variety for state 1 with "PH5004R"
Char. 34	to replace current example variety for state 5 with "T0916LG"
Char. 37	- to check whether to reduce scale to 5 notes - to add example variety "FR83322" for state 3
Char. 38	to add example variety RW666IMI for state 6
Char. 40	to correct spelling of "between"
Char. 41	to have order of states (2) grey; (3) brown
Ad. 13	to improve drawing or replace with photos
TQ 4.2	- to read 4.2.1 Seed propagated varieties (a) Inbred line (b) Hybrid (c) Open-pollinated variety (d) Other (please indicate) 4.2.2 Other (please indicate) - to add ASW for production scheme of hybrid varieties with extra wording "and indicate the maintainer line of the male sterile line" at the end of the last row
TQ 6	to add example

**Tea (*Camellia sinensis *(L.) Kuntze) (Revision)*

103. The subgroup discussed document TG/238/2(proj.3), presented by Mr. Simon Maina (Kenya), on behalf of the Leading Expert, Mr. Simeon Kibet (Kenya), and agreed the following:

3.4.1	to read "… at least 10 plants."
4.1.1	to delete ASW for assessment of distinctness for hybrids
4.1.4	to read "…the number of parts to be taken from each of the plants should be 1."
Char. 1	to delete (*)
Char. 3	- to be indicated as QN - to have notes 1, 3, 5
Chars. 4, 21	example variety "TRFFK 306" to read "TRFK 306"
Char. 6	- to read "Young shoot: time of beginning of 'one and a bud' stage" (spacing) - to be indicated as MS/MG

Char. 7	to delete states “brown” and “dark brown”
Char. 8	to have states (1) absent or sparse (TRFK 31/8); (3) medium (TRFK 704/2); (5) dense (AHP S15/10)
Char. 9	to have notes 1 to 5
Char. 11	state 3 to read “horizontal”
Char. 19	to add illustration (same as Ad. 17 from current adopted version)
Char. 23	- to read “Time of full flowering” - to delete (c)
Char. 24	to have notes 1, 3, 5
New Char. after 25	- to add characteristic “Flower: pubescence of outer side of sepal” - to have states (1) absent with example variety “TRFK 306” and (9) present - to be indicated as QL and VG - to add (c)
New Char. after 26	- to add characteristic “Flower: pubescence of ovary” - to have states (1) absent and (9) present with example varieties “AHP S15/10, TRFK 31/8” - to be indicated as QL and VG - to add (c)
Char. 27	to have notes 1, 3, 5
Char. 28	- to be indicated as PQ - to have states (1) white; (2) greenish; (3) pink
Char. 29	to have notes 1, 3, 5
8.1 (a)	to read “Observations should be made at least 15 months after transplanting or at the first flush of the year, as appropriate.”
8.1 (b)	to read “Observations should be made on the fifth fully developed leaf from the top of the branch.”
8.1 (c)	to read “Observations on the flower should be made on fully developed flowers at the time of full flowering.”
Ad. 6	to read “one leaf and a bud” stage (spacing)
Ad. 10	to read “at three and a bud” stage (spacing)
Ad. 23	to read “Time of full flowering is reached when 50% of the plants have 50% of flowers open.”

*Timothy (*Phleum pratense *L.) (Revision)*

104. The subgroup discussed document TG/34/7(proj.2), presented by Mr. Lubomir Basta (Slovakia), and agreed the following:

2.3	to read “500 g of seed”
3.4.1	to read “… at least 2 replicates.”
3.4.2	- to be moved before 3.4.1 - to read “In addition, the test may include 8 meters of row plot…” - to delete quotation mark at the end of the paragraph
6.4	to delete explanation on species of example varieties (moved to 6.5)
6.5	to add: P.p. - *Phleum pratense* P.n. - *Phleum nodosum*
Char. 1	to add note 3 to state “light”
Char. 3	- to have states from “very short” to “very tall” - to add example varieties: state 1: Latima (P.n.) state 5: Barpenta (P.p.), Vega (P.p.) state 7: Rubato (P.p.)
Char. 4	to add example varieties: state 3: Rhonia (P.p.), Saga (P.p.) state 5: Rasant (P.p.), Teicis (P.p.)
Chars. 6, 7	to invert order (growth habit first, then natural height)

Char. 6	example varieties: state 1: Latima (P.n.) state 3: replace current with Vähäsöyrinki (P.p.) (to correct spelling throughout the draft) state 7: replace current with Prometheus (P.p.); Rasant (P.p.)
Char. 7	to move example variety “Latima (P.n.)” from state 7 to state 9
Char. 9	to add example variety “Adrienne (P.p.)” for state 7
Char. 10	to be deleted
Char. 11	to be deleted
Char. 14	- to add example variety “Teno (P.n.)” for state 3 - to add growth stage 50 - 56
Char. 16	example varieties: state 3: replace Teno (P.n.) with Latima (P.n.) state 7: Aurora (P.p.)
Char. 17	to add example variety “Aurora (P.p.)” for state 7
Char. 18	to be deleted
Char. 19	to add example varieties: state 1: Vega (P.p.) state 3: Anjo (P.p.), Tryggve (P.p.) state 5: Rubato (P.p.) state 7: Timola (P.p.)
Ad. 7	to be deleted
Ad. 12	to be moved to 8.1 (applies to 12 to 14) and to read: “The flag leaf is the first true leaf at the top of the stem which is visible at the time of inflorescence emergence and has a sheath enclosing the stem. In some cases, a small bract-like leaf which has a very short sheath, ligule and blade develops at the base of the inflorescence. This leaf is not visible at the time of inflorescence emergence but only when the inflorescence fully emerged. It generally does not have a normal sheath clasping the stem. This bract-like leaf is not to be considered as a flag leaf.”
9.	to add references for Zadok and Meier (see 8.3)
TQ 4.1	to use standard breeding scheme
TQ 4.2	- to be completed as follows: 4.2.1 Seed-propagated varieties (a) Cross-pollination (b) Other (please provide details) 4.2.2 Other (please provide details) - to delete GN 32 “Information on method of propagation of hybrid varieties”
TQ 6.	to add “Flag leaf: length” and states “short” and “medium”

*Zoysia grasses (*Zoysia *Willd.)*

105. The subgroup discussed document TG/ZOYSI(proj.1), presented by Mr. Yoshiyuki Ohno (Japan), and agreed the following:

Cover page	to change main botanical name to “Zoysia Grasses”
4.2.3	to read “The assessment of uniformity of seed-propagated varieties should be ...”
4.2.4	- population standard to be indicated as 95% - acceptance probability to be indicated as at least 1%
Table of Chars.	- to add example varieties - to check whether to add characteristic on position of inflorescence in relation to vegetative growth with states “below; same level; above”
Chars. 2, 5	to be deleted
Char. 4	to check whether to read “Stolon: length”
Chars. 8, 10	to have notes 1, 3, 5
Char. 14	to correct spelling of “blade”
Chars. 15, 16	to have states (1) absent or very sparse; (2) sparse; (3) medium; (4) dense; (5) very dense
Char. 17	to check whether to be indicated as QL
Char. 18	to have notes 1, 3, 5
Char. 19	to check whether to split in two characteristics: presence of ligule and presence of hairs

Chars. 20 to 25	to have notes 1, 3, 5
Chars. 26, 27, 32, 33, 34	to check whether to replace reference to spring and autumn
Char. 31	to read “Time of appearance of new leaves”
Char. 33	to read “Time of leaf senescence (in autumn)”
8.1 (c)	to add indication for stem and spikelet to illustration
8.1 (d)	to read “Observations on the leaf blade should be made on…”
Ad. 4	to read “… in the 2nd year.” (delete s)
TQ 4.2	to be completed
TQ 6.	to add example

Recommendations on draft Test Guidelines

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

106. The TWA agreed that the following draft Test Guidelines should be submitted to the TC for adoption at its fifty-sixth session, to be held in Geneva on October 26 and 27, 2020 on the basis of the following documents and the comments in this report:

Subject	Basic Document(s) (2020)
*Rice (*Oryza sativa* L.) (Revision)	TG/16/9(proj.4)
*Rye (*Secale cereale* L.) (Revision)	TG/58/7(proj.2)
*Tea (*Camellia sinensis* (L.) Kuntze) (Revision)	TG/238/2(proj.3)
*Timothy (*Phleum pratense* L.; *Phleum nodosum* DC.) (Revision)	TG/34/7(proj.2)

(b) Test Guidelines to be discussed at the fiftieth session

107. The TWA agreed to discuss the following draft Test Guidelines at its fiftieth session:

Subject	Basic Document(s) (2020)
Cocksfoot (*Dactylis glomerata* L.) (Revision)	TG/31/8
*Potato (*Solanum tuberosum* L.) (Revision)	TG/23/7(proj.1)
Rape Seed (*Brassica napus* L. *oleifera*) (Revision)	TG/36/7(proj.1)
*Soya Bean (*Glycine max* (L.) Merrill) (Revision)	TG/80/7(proj.6)
*Sugarcane (*Saccharum* L.) (Revision)	TG/186/2(proj.1)
*Sunflower (*Helianthus annuus* L.) (Revision)	TG/81/7(proj.2)
Couch Grass, Bermuda Grass (*Cynodon* Rich.)	New
Zoysia Grasses (*Zoysia* Willd.)	TG/ZOYSI(proj.1)

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

(c) Possible Test Guidelines to be discussed in 2022

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

Subject	Basic Document(s) (2020)
White Mustard (*Sinapis alba* L.) (Revision)	TG/179/3

(d) Participation in discussions of Test Guidelines from other TWPs

110. The TWA agreed to propose that the following experts be added as interested experts to the following draft Test Guidelines being discussed by the Technical Working Party for Vegetables (TWV), subject to the deadlines agreed in document TWV/54/9 “Report”, Annex III:

Subject	Interested experts (countries/organizations) [1]
Kale (*B. oleracea* L. var. *costata* DC.; *B. oleracea* L. var. *medullosa* Thell.; *B. oleracea* L. var. *sabellica* L.; *B. oleracea* L. var. *viridis* L.; *B. oleracea* L. var. *palmifolia* DC.) (Revision)	FR, NZ
Turnip (*Brassica rapa* L. var. *rapa* (L.) Thell.) (Revision)	DE, FI, FR, GB, NZ, QZ

Date and place of the next session

111. At the invitation of the United Republic of Tanzania, the TWA agreed to hold its fiftieth session in Arusha, United Republic of Tanzania, from June 21 to 25, 2021.

Future program

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

1. Opening of the Session
2. Adoption of the agenda
3. Short reports on developments in plant variety protection
   (a) Reports from members and observers (written reports to be prepared by members and observers)
   (b) Report on developments within UPOV (oral report by the Office of the Union)
4. Molecular Techniques (document to be prepared by the Office of the Union)
   (a) Developments in UPOV (document to be prepared by the Office of the Union)
   (b) Presentation on the use of molecular techniques in DUS examination (presentations by Argentina, France and presentations invited from members of the Union)
5. TGP and INF series documents (documents to be prepared by the Office of the Union)
6. Variety denominations (document to be prepared by the Office of the Union)
7. Information and databases
   (a) UPOV information databases (document to be prepared by the Office of the Union)
   (b) Variety description databases (document to be prepared by the Office of the Union and documents invited)
   (c) Exchange and use of software and equipment (document to be prepared by the Office of the Union and documents invited)
   (d) UPOV PRISMA (document to be prepared by the Office of the Union)
8. New technology used in DUS examination (documents to be prepared by Argentina, Denmark, ISF and documents invited)
9. Examining hybrid varieties (document to be prepared by United Kingdom and documents invited)
10. International cooperation in examination
11. Experiences with new types and species (oral reports invited)
12. Revision of Test Guidelines (document to be prepared by the Office of the Union)
13. Guidance for drafters of Test Guidelines
14. Discussion on draft Test Guidelines (Subgroups)
15. Recommendations on draft Test Guidelines

[1] for name of experts, see list of participants

16. Date and place of the next session
17. Future program
18. Adoption of the Report on the session (if time permits)
19. Closing of the session

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

[Annex I follows]

ANNEX I

LIST OF PARTICIPANTS

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Hend MADHOUR (Ms.), IT Officer
Romy OERTEL (Ms.), Secretary II
Jessica MAY (Ms.), Secretary I
Wen WEN (Ms.), Fellow
Kasumi FALQUET (Ms.), Administrative support

[Annex II follows]

Canadian Food Inspection Agency | Agence canadienne d'inspection des aliments

Canada's Plant Breeders' Rights (PBR)

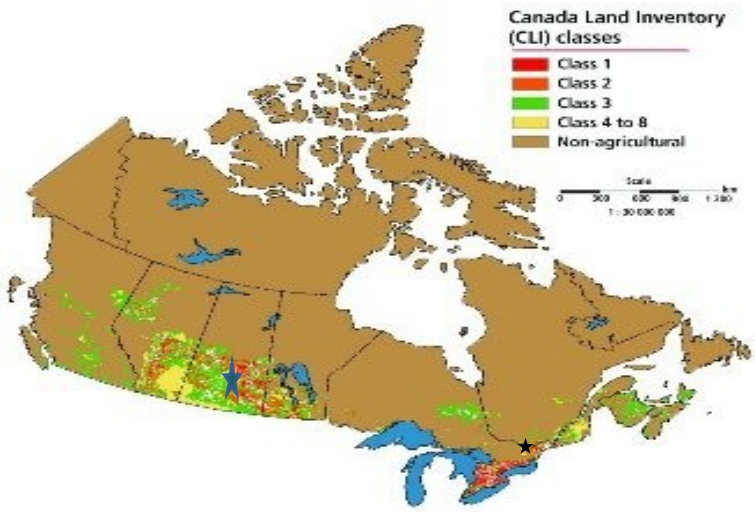
Intellectual Property Framework

UPOV – TWA/49

Canada

Saskatoon…hopefully next time.

Canadian Agriculture



Canadian Agriculture

Agriculture & Agri-food System (AAFS)

- 4.81% of Canada's land mass is arable (43,766,00 ha) (2016)
- Generates $111.9 billion (CAD) annually, 6.7% GDP (2016)
- $56 billion in exports (2016)
- Sector employees 2.3 million Canadians
- Average net worth per farm is $2.8 million (2015)
- Average farm size is 332 hectares (820 acres) (2016)

Seed Industry

- $5.6 billion in economic output (2014)
- Employees 60,000 people
- $171 million private sector annual investment plant breeding (2017)

Crop Kind	Hectares Planted (ha)	Yield (t/ha)
Canola	8,342,000	2.27
Wheat	8,233,000	3.59
Barley	2,934,000	3.69
Durum	2,116,000	2.65
Soybeans	2,112,000	2.89
Dry Peas	1,732,000	2.51
Oats	1,551,000	3.54
Corn	1,544,000	9.77
Lentils	1,501,000	1.46
Flaxseed	381,000	1.50
Rye	231,000	3.01
Mustard	160,000	0.90
Dry Beans	131,000	2.30
Canary Seed	112,000	1.41
Potato	57,000	34.39

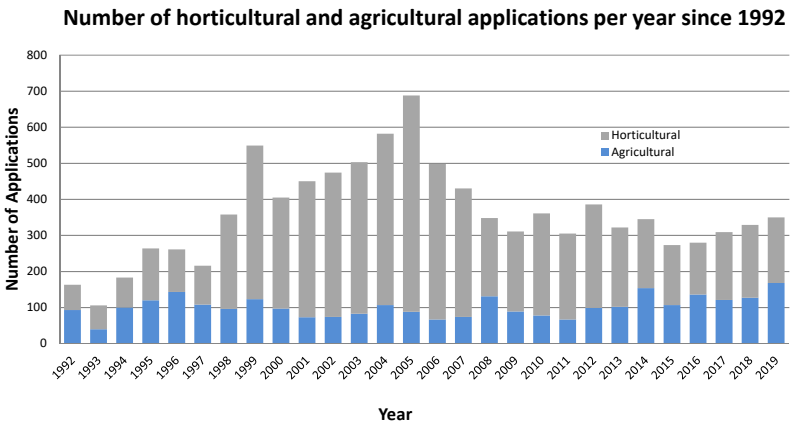
Plant Breeders' Rights Act

- Canada's *PBR Act* was passed August, 1990
- Originally based on 1978 Convention of the International Union for the Protection of New Varieties of Plants (*UPOV'78*)
- Intent of the legislation to:

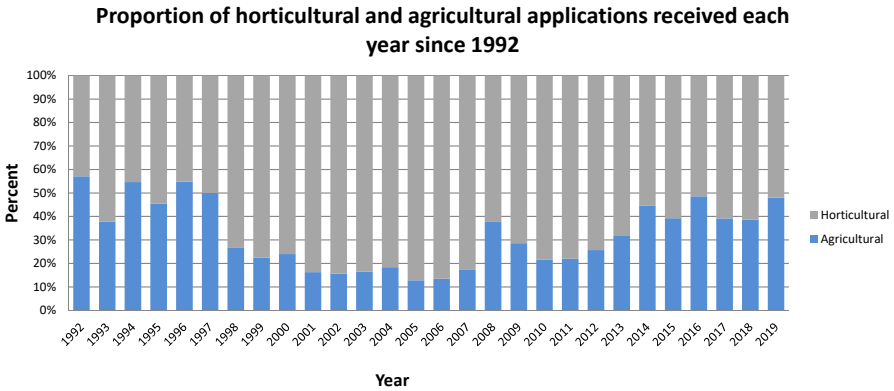
  - Stimulate investment in Canadian plant breeding
  - Provide Canadian producers with better access to foreign varieties
  - Facilitate protection for Canadian bred varieties in other countries

- PBR Office started receiving applications in 1992
- *PBR Act* was amended on February 27th, 2015 in conformity with *UPOV'91* and ratified on June 19th, 2015

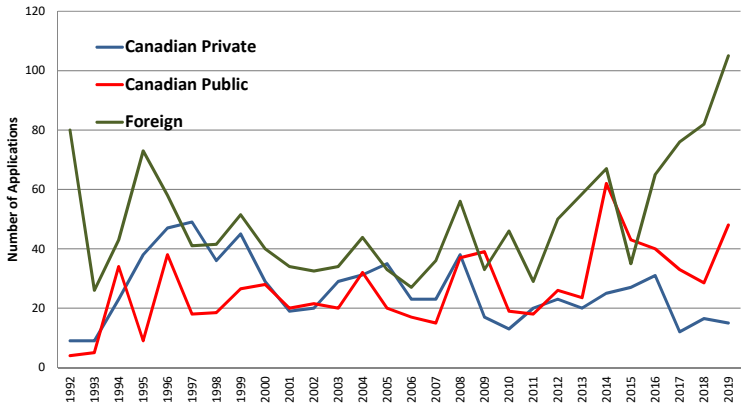
PBR Application Statistics



PBR Application Statistics



PBR Agriculture Applications



Plant Breeders' Rights Office

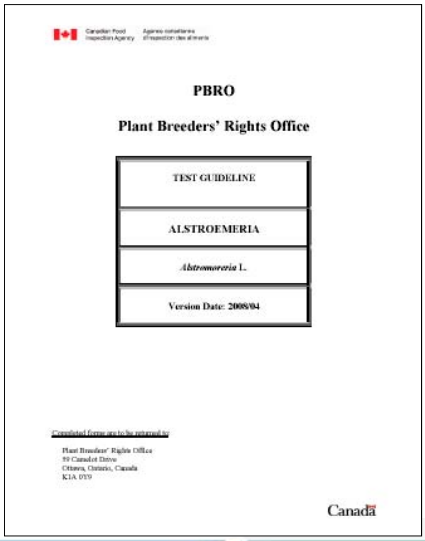
- The *PBR Act* is administered by the Commissioner and Examiners of the PBR Office, contained within the Canadian Food Inspection Agency (CFIA)
- PBR Office is located at 59 Camelot Dr., Ottawa, Ontario
- Total number of employees = 7

DUS Testing

- The UPOV Convention (Article 7(1) of the 1961/1972 and 1978 Acts and Article 12 of the 1991 Act) requires that a variety be examined for compliance with DUS
- The 1991 Act of the Convention clarifies the various arrangements for DUS testing (TGP/6):
  - *a) the authority conducts growing trials, or other tests itself*
  - *b) the authority arranges for another party / other parties to conduct the growing trials or other tests*
  - *c) the authority takes into account the results of growing tests or other trials which have already been carried out*
- Canada employs options b) and c), a combination of a "breeder-run" testing system and accepting foreign test reports from other UPOV member countries

DUS Test Guidelines (TG)

- Breeder or trial coordinator is provided TG for the crop before initiating trials
- UPOV TG nationalized for ease of recording observations – separate versions for English and French
- All illustrations & explanations from UPOV TG are included
- Other information includes:
  - Detailed instructions for applicant on conduct of trials
  - Instructions on analysis and summary of data
  - Instructions for taking comparative photographs



PBRO

Plant Breeders' Rights Office

TEST GUIDELINE

ALSTROEMERIA

Alstroemeria L.

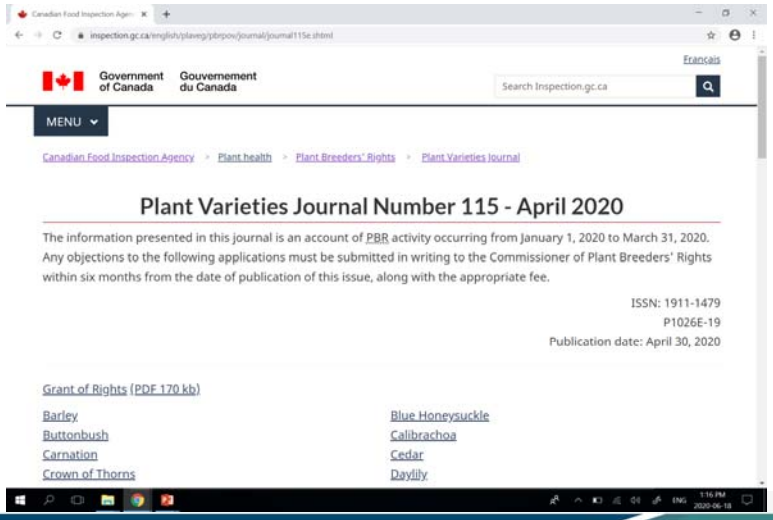
Version Date: 2008/04

Canada

Examination of DUS Trials

- Examiner from PBR Office visits all trials to confirm they are conducted properly and that the new variety is distinct & uniform (~250-300/year)
- Examiner takes observations, measurements and notes on the distinguishing characteristics and confirms that the reference varieties were appropriate
- Breeder/trial coordinator submits complete variety description and comparative photos to PBR Office

Plant Varieties Journal (PVJ)



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Français

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MENU

Canadian Food Inspection Agency > Plant health > Plant Breeders' Rights > Plant Varieties Journal

Plant Varieties Journal Number 115 - April 2020

The information presented in this journal is an account of PBR activity occurring from January 1, 2020 to March 31, 2020. Any objections to the following applications must be submitted in writing to the Commissioner of Plant Breeders' Rights within six months from the date of publication of this issue, along with the appropriate fee.

ISSN: 1911-1479
P1026E-19
Publication date: April 30, 2020

Grant of Rights (PDF 170 kb)

Barley
Buttonbush
Carnation
Crown of Thorns
Blue Honeysuckle
Calibrachoa
Cedar
Daylily

PVJ – Variety Description

KLEP04112

(Pelargonium)

Denomination:	'KLEP04112'
Trade name:	Glacier White
Botanical Name:	*Pelargonium peltatum*
Applicant/Holder:	Klemm, Nils Hanfäcker 10 70378 Stuttgart Germany Tel: 0711/95325-0 Fax: 0711/95325-50
Breeder:	Nils Klemm, Stuttgart, Germany
Agent in Canada:	Brenda Cole BioFlora Inc. R.R. #1, 38723 Fingal Line St. Thomas, Ontario N5P 3S5 Canada Tel: 519-631-6241 Fax: 519-631-0056
Application Date:	2004-03-24
Application Number:	04-4133
Grant of Rights Date:	2007-11-28
Certificate Number:	3080
Grant of Rights Termination Date:	2025-11-28

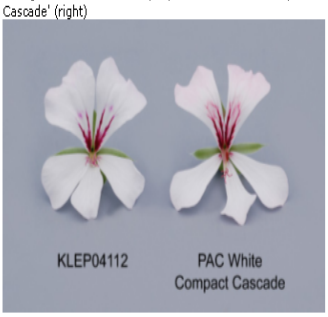
Variety Description

Comparison table for 'KLEP04112'

'KLEP04112'	'PAC White Compact Cascade'*
Colour of upper flower petal marking (RHS)	
N79C, N78A	59A, 58C

*reference variety

Pelargonium: 'KLEP04112' (left) with reference variety 'PAC White Compact Cascade' (right)

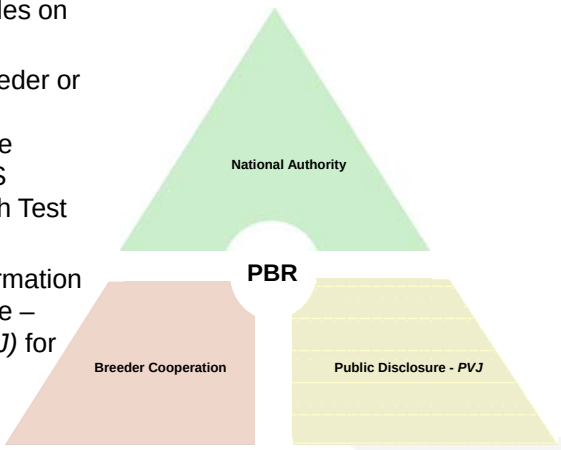


Canada's PBR Framework

National Authority - PBR Office conducts site examination and PBR Commissioner decides on Grant of Rights

Breeder Cooperation – breeder or trial coordinator provides detailed information on the variety and conducts DUS Testing in accordance with Test Guidelines.

Public Disclosure – all information about a variety is available – *Plant Variety Journal (PVJ)* for public scrutiny and input



PBR Act - Advisory Committee

ADVISORY COMMITTEE

73. (1) The Minister shall constitute an advisory committee on any terms and conditions determined by the Minister.

(2) The advisory committee shall be composed of persons appointed by the Minister from among representatives of organizations of breeders of plant varieties, dealers in seeds, growers of seeds, farmers, horticulturists and of any other interested persons considered appropriate by the Minister.

(3) The function of the advisory committee is to assist the Commissioner in the application of this Act...

Advisory Committee (AC)

Agriculture and Agri-Food Canada / Agriculture et Agroalimentaire Canada
COHA ACHO Canadian Ornamental Horticulture Alliance / Alliance Canadienne de l'Horticulture Ornementale
CSTA ACCS
CFA FCA Canadian Federation of Agriculture / Fédération canadienne de l'agriculture
Canadian Potato Council / Conseil canadien de la pomme de terre
Canadian Horticultural Council / Conseil canadien de l'horticulture
CSGA Canadian Seed Growers' Association
ACPS Association canadienne des producteurs de semences
Canada Organic trade association / Association pour le commerce des produits biologiques
CANTERRA SEEDS
GRAIN GROWERS OF CANADA / LES PRODUCTEURS DE GRAINS DU CANADA
University of Saskatchewan Crop Development Centre
syngenta
PRODUCTEURS DE GRAINS DU QUÉBEC

Recent Developments

- 2018/19 – Consultations with the stakeholder community on two models of “Value Creation” for agriculture crops:

    1) farm-saved seed royalty, or;
    2) end-point royalty on harvested grain

- Diversity of views and perspectives, with no clear consensus on a path forward.

- 2020 - Canadian seed industry initiated a contract based “Seed Variety Use Agreement (SVUA)” pilot project (farm saved seed royalty) on a limited number of agriculture varieties:

seedvaluecreation.ca

[Annex III follows]

ANNEX III

DRAFT TEST GUIDELINES TO BE SUBMITTED TO THE TECHNICAL COMMITTEE IN 2020

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

before August 7, 2020

Species	Basic Document(s)	Leading expert
*Rice (*Oryza sativa* L.) (Revision)	TG/16/9(proj.4)	Mr. Kohei Imamura (JP)
*Rye (*Secale cereale* L.) (Revision)	TG/58/7(proj.2)	Ms. Beate Rücker (DE)
*Tea (*Camellia sinensis* (L.) Kuntze) (Revision)	TG/238/2(proj.3)	Mr. Simeon Kibet Kogo (KE)
*Timothy (*Phleum pratense* L.; *Phleum nodosum* DC.) (Revision)	TG/34/7(proj.2)	Mr. Lubomir Basta (SK)

DRAFT TEST GUIDELINES TO BE DISCUSSED AT TWA/50
(* indicates possible final draft Test Guidelines)

Guideline date for Subgroup draft to be circulated by Leading Expert: **March 12, 2021**
Guideline date for comments to Leading Expert by Subgroup: **April 9, 2021**

New draft to be submitted to the Office of the Union
before May 8, 2021

Species	Basic Document	Leading expert	Interested experts (countries/organizations)[2]
Cocksfoot (*Dactylis glomerata* L.) (Revision)	TG/31/8	Anne-Lise Corbel (FR)	AR, DE, GB, IT, JP, NZ, PL, QZ, SK, Euroseeds, Office
*Potato (*Solanum tuberosum* L.) (Revision)	TG/23/7(proj.1)	Ms. Beate Rücker (DE)	AU, AT, BR, CA, CN, CZ, DK, ES, FR, GB, IR, IT, JP, KE, KR, NL, NZ, PL, QZ, SK, AFSTA, CLI, Euroseeds, ISF, Office
Rape Seed (*Brassica napus* L. *oleifera*) (Revision)	TG/36/7(proj.1)	Ms. Margaret Wallace (GB)	AU, BR, CA, CN, CZ, DE, DK, ES, FI, FR, IT, JP, KR, NZ, PL, QZ, SK, UY, CLI, Euroseeds, ISF, Office
*Soya Bean (*Glycine max* (L.) Merrill) (Revision)	TG/80/7(proj.6)	Mr. Alberto Ballesteros (AR)	AR, AT, AU, BR, CA, CN, CO, ES, FR, HU, IT, JP, KR, NL, PL, PY, QZ, SK, US, UY, VN, ZA, AFSTA, CLI, Euroseeds, ISF, SAA, Office
*Sugarcane (*Saccharum* L.) (Revision)	TG/186/2(proj.1)	Mr. Tanvir Hossain (AU)	BR, CN, JP, KE, ISF, Office
*Sunflower (*Helianthus annuus* L.) (Revision)	TG/81/7(proj.2)	Mr. Zoltán Csűrös (HU)	AU, AR, BR, CA, CN, DE, ES, FR, IT, JP, KE, QZ, RO, SK, UY, ZA, AFSTA, ISF, Euroseeds, CLI, Office
Couch Grass, Bermuda Grass (*Cynodon* Rich.)	New	Mr. Andrew Hallinan (AU)	BR, CN, FR, IT, JP, Euroseeds, ISF, Office
Zoysia Grasses (*Zoysia* Willd.)	TG/ZOYSI(proj.1)	Mr. Yoshiuki Ohno (JP)	AU, BR, ES, KR, ISF, Office

DRAFT TEST GUIDELINES TO POSSIBLY BE DISCUSSED IN 2021

Species	Basic Document(s)
White Mustard (*Sinapis alba* L.) (Revision)	TG/179/3

[End of document]

[2] for name of experts, see list of participants