

Technical Working Party for Agricultural Crops

Forty-Sixth Session

Hanover, Germany, June 19 to 23, 2017

TWP/1/13**Original:** English**Date:** June 9, 2017**Technical Working Party for Vegetables**

Fifty-First Session

Roelofarendsveen, Netherlands, July 3 to 7, 2017

Technical Working Party for Ornamental Plants and Forest Trees

Fiftieth Session

Victoria, Canada, September 11 to 15, 2017

Technical Working Party for Fruit Crops

Forty-Eighth Session

Kelowna, Canada, September 18 to 22, 2017

Technical Working Party on Automation and Computer Programs

Thirty-Fifth Session

Buenos Aires, Argentina, November 14 to 17, 2017

THE COMBINED-OVER-YEARS UNIFORMITY CRITERION (COYU)*Document prepared by the Office of the Union**Disclaimer: this document does not represent UPOV policies or guidance***EXECUTIVE SUMMARY**

1. The purpose of this document is to report on developments concerning the improved method of calculation of the Combined-Over-Years Uniformity Criterion (COYU). The current method of calculation of the COYU criterion is described in document TGP/8 "Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability"
2. The COYU Criterion is used for the assessment of uniformity with quantitative characteristics, when observations are made on a plant basis over two or more cycles and when there is quantitative variation between plants of a variety.
3. The TWPs are invited to note the report on developments as set out in this document.
4. The TWC is invited to consider the developments concerning the new method of calculation of COYU, to be provided by the expert from the United Kingdom.
5. The following abbreviations are used in this document:

TC:	Technical Committee
TWA:	Technical Working Party for Agricultural Crops
TWC:	Technical Working Party on Automation and Computer Programs
TWF:	Technical Working Party for Fruit Crops
TWO:	Technical Working Party for Ornamental Plants and Forest Trees
TWPs:	Technical Working Parties
TWV:	Technical Working Party for Vegetables

6. The structure of this document is as follows:

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7. At their sessions in 2016, the TWC, TWO, TWV, TWA and TWF considered documents TWC/34/10, TWO/49/10, TWV/50/10, TWA/45/10 and TWF/47/10 "Revision of document TGP/8: Part II: Selected Techniques Used in DUS Examination, Section 9: The Combined-Over-Years Uniformity Criterion (COYU)", respectively (see documents TWC/34/32 "Report", paragraph 30, TWO/49/25 "Report", paragraph 24, TWV/50/25 "Report", paragraph 29, TWA/45/25 "Report", paragraph 28 and TWF/47/25 "Report", paragraph 29, respectively).

8. The TWC, TWO, TWV, TWA and TWF noted that the Office of the Union had issued UPOV Circular E-16/098 to invite UPOV members' experts to provide to the United Kingdom, by May 27, 2016, data sets including at least 100 candidate varieties, with a possibility that data for those 100 varieties could be derived from several years (see documents TWC/34/32, paragraph 32, TWO/49/25, paragraph 26, TWV/50/25, paragraph 31, TWA/45/25, paragraph 30 and TWF/47/25, paragraph 31, respectively).

9. The TWC noted the report by an expert of the United Kingdom that a data set on red fescue had been submitted by Slovakia and that Denmark had agreed to submit a data set on spring and winter canola later in 2016 (see document TWC/34/32, paragraph 33).

10. The TWO, TWV, TWA and TWF noted the report by an expert of the United Kingdom on the results and further progress, including contribution of data sets, made at the thirty-fourth session of the TWC (see documents TWO/49/25, paragraph 27, TWV/50/25, paragraph 32, TWA/45/25, paragraph 31 and TWF/47/25, paragraph 32, respectively).

11. The TWC welcomed the offers from China and France to submit data sets on maize and fescue, respectively. The TWC noted the invitation for submission of other data sets with 100 candidates from as many crops as possible for developing probability levels for the new method. The TWC agreed to invite the expert from the United Kingdom to report on progress during the thirty-fifth session of the TWC (see document TWC/34/32, paragraph 34).

12. The TWO noted that COYU was not commonly used for DUS examination of ornamental plants (see document TWO/49/25, paragraph 24).

13. The TWV noted the offer made from the expert of France and the United Kingdom to provide data on pea and field pea, respectively (see document TWV/50/25, paragraph 33).

14. The TWA noted the report from the expert from Denmark that the software provided by the United Kingdom had been tested and that a data set on oilseed rape varieties would be provided to support the development of probability levels for the new method of calculation of COYU (see document TWA/45/25, paragraph 32).

15. The expert from the United Kingdom informed the Office of the Union that further progress on the development of the new method was not expected before the fifty-third session of the TC and that further developments would be reported to the TWC, at its thirty-fifth session, to be held in Buenos Aires, on November 2017.

DEVELOPMENTS IN 2017

16. At its fifty-third session, the TC considered document TC/53/16 "Revision of document TGP/8: Part II: Selected Techniques Used in DUS Examination, Section 9: the Combined-Over-Years Uniformity Criterion (COYU)" (see document TC/53/31, paragraph 111).

17. The TC noted that (see document TC/53/31, paragraph 112):

(a) the Office of the Union had issued UPOV Circular E-16/098 to invite UPOV members' experts to provide to the United Kingdom, by May 27, 2016, data sets including at least 100 candidate varieties, with a possibility that data for those 100 varieties could be derived from several years;

(b) the TWC had received a report by an expert of the United Kingdom that a data set on red fescue had been submitted by Slovakia and that Denmark had agreed to submit a data set on spring and winter canola later in 2016;

(c) the TWC had received offers from China and France to submit data sets on maize and fescue, respectively;

(d) the TWC had agreed to invite the expert from the United Kingdom to report on progress during the thirty-fifth session of the TWC;

(e) the TWC had noted that COYU was not commonly used for DUS examination of ornamental plants;

(f) the TWC had received offers by the experts from France and the United Kingdom to provide data on pea and field pea, respectively;

(g) the TWC had received a report by the expert from Denmark that the software provided by the United Kingdom had been tested and that a data set on oilseed rape varieties would be provided to support the development of probability levels for the new method of calculation of COYU; and

(h) the expert from the United Kingdom had no new developments to report to the TC and would report on the progress of development of the new method of calculation of COYU to the TWC at its thirty-fifth session.

18. The TWPs are invited to note the report on developments as set out in this document.

19. The TWC is invited to consider the developments concerning the new method of calculation of COYU, to be provided by the expert from the United Kingdom.

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