

Technical Working Party on Automation and Computer Programs TWC/38/8 Rev.

Thirty-Eighth Session
Alexandria, United States of America, September 21 to 23, 2020
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COMPARISON OF RESULTS OBTAINED FOR COYD AND COYU PROCEDURES USING DIFFERENT SOFTWARE

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- 1. The Technical Working Party on Automation and Computer Programs (TWC), at its thirty-seventh session, held in Hanghzou, China, from October 14 to 16, 2020, considered document TWC/37/8 and received a presentation on "A statistical analysis Software DUS EXCEL". A copy of the presentation is provided in the Annex to document TWC/37/8 (see document TWC/37/12 "Report", paragraphs 104 and 105).
- 2. The TWC considered the validation of the software presented. It recalled the previous exercise comparing results between the software of China and other software used by TWC participants. The TWC noted the offer by the United Kingdom to provide a common data set to China, France and Kenya for comparing results obtained for COYD and COYU procedures using different software.
- 3. The Annexes to this document contain the following:
 - Annex I: Document on "A common data set for comparison of software for COYD and COYU", prepared by an expert from the United Kingdom
 - Annex II: Presentation on "A common data set for comparison of software for COYD and COYU", prepared by an expert from China
 - Annex III: Common data set provided by the United Kingdom (Excel file)
 - Annex IV: Excel file containing the results from China

[Annexes follow]

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ANNEX I

A COMMON DATA SET FOR COMPARISON OF SOFTWARE FOR COYD AND COYU Document prepared by experts from the United Kingdom

BACKGROUND

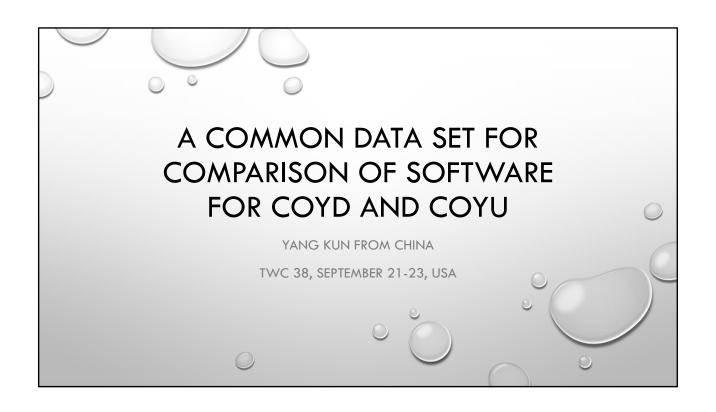
- 4. The combined-over-year distinctness and uniformity criteria (COYD and COYU) are statistical techniques for assessing distinctness and uniformity with measured quantitative characteristics. These methods are described in document TGP/8 "Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability".
- 5. Members use a range of software packages to apply COYD and COYU on DUS data. At the thirty-fourth session of the TWC, a presentation was made on a ring test of software for COYD. The session report TWC/34/32 stated:
 - "95. The TWC received a presentation by an expert from China on "A ring-test comparing three different software packages for COYD", a copy of which is reproduced in the Annex to document TWC/34/30. The TWC noted that the same data set was used to compare results generated for the COYD procedure using the statistical packages developed in China (DUSTC), Germany (SAS) and the United Kingdom (DUST). The TWC noted that the three different software packages produced the same result."
- 6. At the thirty-seventh session of the TWC, it was proposed that further comparisons of software could be made for both COYD and COYU. The session report TWC/37/12 stated that:
 - "105. The TWC considered the validation of the software presented. It recalled the previous exercise comparing results between the software of China and other software used by TWC participants. The TWC noted the offer by the United Kingdom to provide a common data set to China, France and Kenya for comparing results obtained for COYD and COYU procedures using different software."

A COMMON DATA SET FOR COMPARING SOFTWARE FOR COYD AND COYU

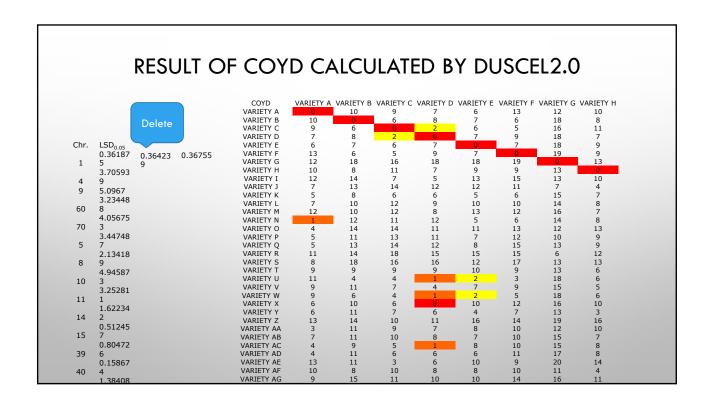
- 7. Experts from the United Kingdom have compiled a common data set to allow comparisons of software. The data set is suitable for both COYD and COYU. The data set is available in an Excel file in the Annex to this document.
- 8. The data set consists of means and pooled within-plot standard deviations for 33 varieties in each of three years. There are 22 characteristics. Eight of the varieties are candidates with the remainder to be treated as reference varieties.
- 9. For the purposes of the ring test, it is suggested that three-year COYD and COYU tests should be carried out by participants. The probabilities levels should be 0.01 for COYD and 0.001 for COYU. If the new revised version of COYU is being applied, then the probability level of 0.003 should be used.
- 10. The experts from the United Kingdom have supplied the data set. In order to encourage participation and involvement in the work of the TWC, the experts from the United Kingdom propose that another expert coordinates the ring test. The experts from the United Kingdom offer to provide results using the DUSTNT software.

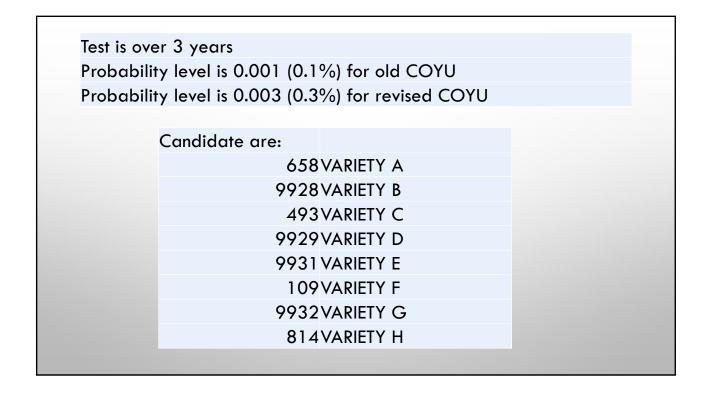
[Annex II follows]

ANNEX II

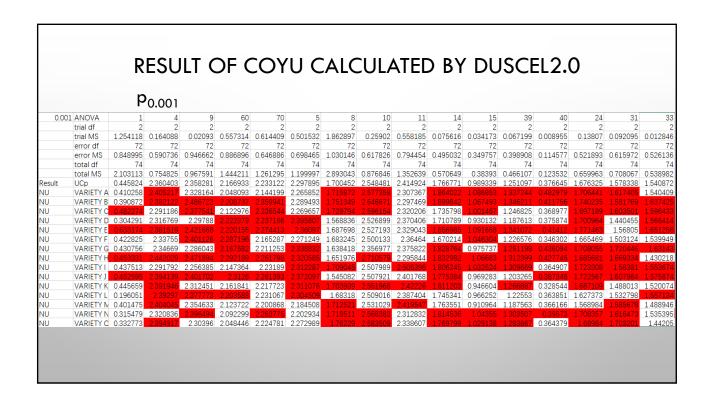


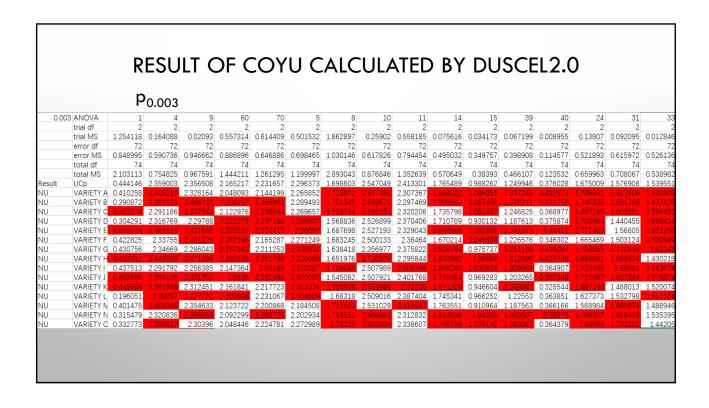
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Variation A AC	char_14 LGTH.FL
Varieties A-AG: 33 Candidates: 8 Years: 3 Characteristics: 22	char_15 WIDTH FL
	char_17 LLSEE+30
	char_39 LEAFAREA
	char_40 LEAFSHPE
	char_24 EAR LGTH
	char_31 SPKLT NO
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[Annex III follows]

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ANNEX III	
Please see the Excel file	
ANNEX IV	
Please see the Excel file	

[End of Annexes and of document]