



Cigar Smoking Method (CSM) Sub-Group

2022 CORESTA Congress Online

October 2022



CSM SG Sub-Group Report

❖ Agenda

➤ Activities 2022

- CSM SG Meeting 2022
- Collaborative Study 16

➤ Planned activities 2023

- Collaborative Study 17
- Presentation of NWIP



CSM SG Group Meeting 2022

❖ CSM SG group meeting October 2022

- Present and discuss results of CS16
- Discuss activities 2023
 - NWIP – Variability of Cigars
 - Planning of CS 17
 - Next group meeting



Collaborative Study 16 - 2022

❖ Collaborative Study 16

- The purpose of the Collaborative Study is to estimate the mean values, repeatability, and reproducibility for NFDPM (tar), nicotine, carbon monoxide and other measures for different sizes and types of cigar products and test pieces and to provide a tool for participating laboratories to prove competence in cigar smoke analysis.
- Seven laboratories participated:
 - Essentra, Global Laboratory Services, Manifattura Sigaro Toscano SpA, Reemtsma, Scandinavian Tobacco Group, University of Kentucky, Villiger Söhne GmbH

❖ Products tested



❖ Results TPM mg/test item: r & R

Product	Mean	N Labs	r	r (%)	R	R (%)
K (1C1)	98,3	7	28,61	29,1%	64,34	65,4%
L (1C2)	22,9	7	3,71	16,2%	8,83	38,6%
M (1C3)	63,3	7	8,54	13,5%	20,75	32,8%
N (1C4)	63,5	7	14,20	22,4%	22,01	34,7%
O (CM9)	15,8	7	2,91	18,4%	4,24	26,9%

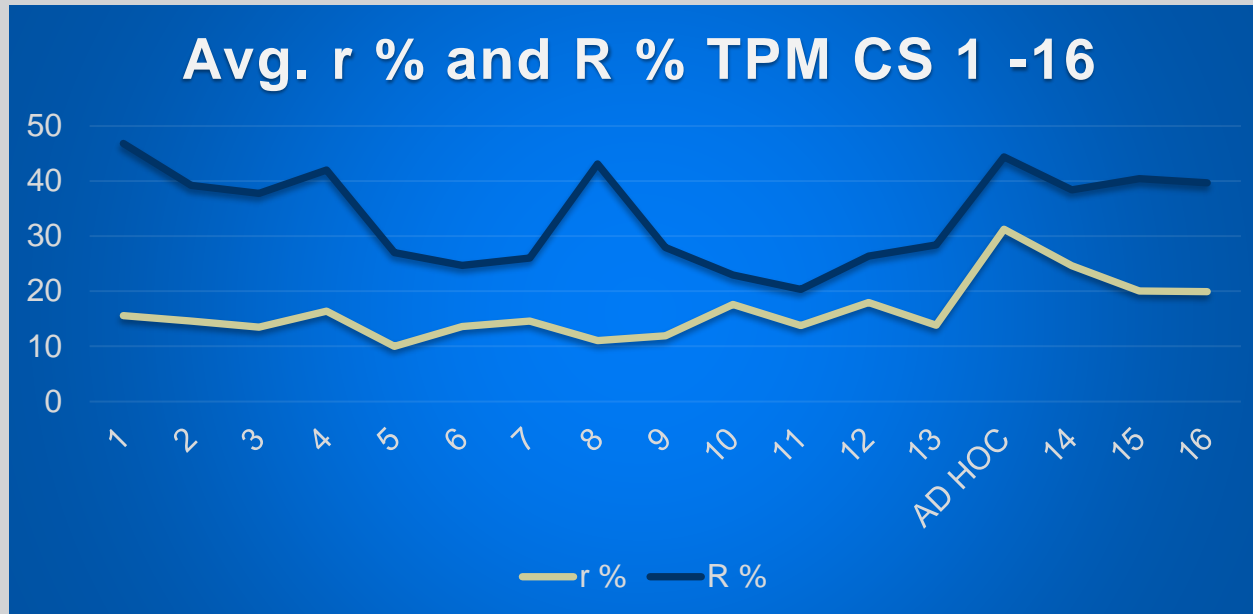
❖ Conclusion

- Most of the mean values were in reasonable agreement with the 2020 results. Even the ones that appeared to be rather different were not statistically significantly different.
- The r & R results indicated large variability, but that is in line with the inherent variability seen with cigars.
- The z-scores indicated reasonable agreement among the laboratories, however, there were a few concerning z-scores exceeding $|z|>3$ that warrant investigation by the corresponding laboratory.



Collaborative Study 16 - 2022

❖ Historical results TPM mg/test item: r & R %





Activities planned 2023

- ❖ **NWIP on variability of cigars**
 - **Proposal for a study of the long term (3 year) variability of cigars will be presented to the SC.**
- ❖ **Collaborative Study 17**
- ❖ **Possible face to face meeting in spring of 2023**



Acknowledgements and Final Remarks

- ❖ Thank you to the participants of the CSM SG group, especially to the laboratories contributing to the collaborative study
- ❖ A special thanks to Michael J. Morton for conducting the statistical analysis and writing the report on the collaborative study.
- ❖ With 7 laboratories participating in the latest study, the CSM SG group is at the limit of what is needed for good statistical analysis. Participation in future studies is strongly encouraged.

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