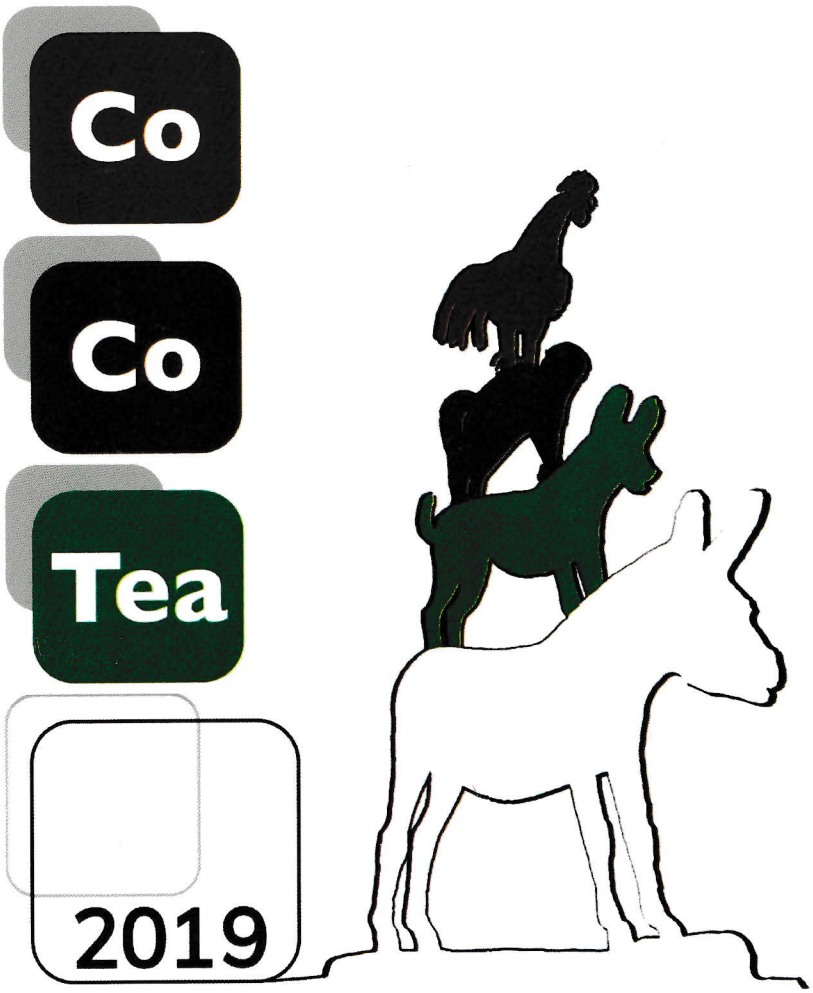
Book of Abstracts



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Dendrogram analysis showed that two main groups with 55 % the similarity. The first group with 85 % the similarity (FC, LP, LD, DB and WT) involves the farms located in altitude ranging from 907 to 1.078 m belonging the face south, and the second with 90 % the similarity (FA, FC and ST) involves the farms located in altitude ranging from 735 to 870m, belonging in the face west and east. The Venn diagram showed that face, solar radiation and altitude explain 47 % of the variation the profile of the bacterial community. This work showed the influence of the face, solar radiation and altitude in the community profile of bacteria and that other factors may also affect this profile.
[DeBruyn]

References:
[DeBruyn] De Bruyn, F., Zhang, S.J., Pothakos, V., Torres, J., Lambot, C., Moroni, A.V., Callanan, M., Sybesma, W., Weckx, S., De Vuyst, L., (2017), Exploring the impacts of postharvest processing on the microbiota and metabolite profiles during green coffee bean production. , Applied and Environmental Microbiology, Applied and Environmental Microbiology, Washington, https://aem.asm.org/content/about-aem, https://www.ncbi.nlm.nih.gov/pubmed/27793826

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Application of the CATA (check-all-that-apply) method to validate a panel for sensory analysis of coffee

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The training of a panel for the QDA analysis requires lot of time and energy, both during the training and the monitoring of the panel performance itself. Several rapid sensory methods have been proposed like Flash *Profile*[1] *(FP), Free Choice Profiling*[2] *(FCP) and CATA (check-all-that-apply) method. While the application of* FP and FCP is widely used with untrained subjects, CATA method has been used where trained panels has been employed[3].
The aim of this work was then to compare a QDA with a CATA analysis performed on nine espresso coffee samples.
In particular, comparison was performed only for odor and flavor sensory descriptors. While the reproducibility of the panel used for QDA has been checked by using the analysis of variance considering Product, Judges, Repetition and their interaction as main factors, the reproducibility of the panel used for CATA has been checked using an average reproducibility index (R_i)[3].
Only judges who have shown a reproducibility index (R_i) > 0,5 have kept for following analysis. Moreover, in order to evaluate the agreement of panel in products evaluation, correspondence analysis (CA) for each product has been performed.
Once assessed the performance of both panels, PCA and CA analysis have been performed showing that while PCA explained the 45,52% of differences between products, the CA analysis explained the 59,18% of differences. Products were then described by QDA and CATA with same characteristics.
CA analysis has been then compared to the PCA analysis comparing sample configurations in the first and in the second dimension of each methodology using the Regressor Vector coefficient (RV)[4].
The RV coefficient between sample configuration was significant as it was 0,603.
This data shows that results obtained from both panels are comparable then the CATA methods can be an interesting alternative to QDA above all for the low time request for panel training.

References:
[1] Dairou and Sieffermann, (2002)
[2] Williams and Langron, (1984)
[3] Campo et al., (2008)
[4] Robert & Escofier, (1976)