PC413 Chemical Composition and Quality of Coffee Stored Under Different Forms of Processing and Drying.

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Rationale

Due to the high humidity content in which is harvested, coffee requires adequate drying in order to preserve its quality. This work aimed to check the effects of drying and processing on chemical composition and quality of coffee along the storage.

Methods

Fruits of *Coffea arabica* L. were collected at the stage of ripening cherries and underwent three forms of processing: natural coffee, cherry with mucilage removed and cherry pulped. Then were submitted to either slow drying, being dried in suspended screenhouse in the shade or fast drying, in fixed layer dryer with temperature control of 35°C, until they reach approximately 11% of water content (b.u.). After the drying process, the coffees were processed and stored at a temperature of 20°C, being evaluated at 0, 4, 8 and 12 months of storage through sensory evaluation and testing of electric conductivity (EC), leaching of potassium (LK), total titratable acidity (ATT), total sugars (AT), colour index (CI) and enzyme activity of poliphenoloxidase (PPO). To analyze the effect of the processing and the way of drying on the quality of coffee along the storage was performed the Principal Component Analysis (PCA) using the computational software R (2013).

Results

The coffees submitted to slow drying at the beginning of storage were the ones that presented the highest sensory notes and higher values of PPO and IC. On the other hand, natural coffees submitted to fast drying at the end of storage presented the lowest sensory notes and lower IC and PPO. In addition, natural coffees submitted to fast drying presented higher values of EC and LK.

Conclusions & Perspectives

It is concluded that the natural coffees are more sensitive to drying process than the coffees processed wet, especially when they are submitted to fast drying.

References

1 R Development Core Team. **R:** a language and environment for statistical computing. Foundation for Statistical Computing, Viena (2013).