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CORRELATION WITH SENSORY QUALITY OF COFFEE ARABICA IN SOUTH WEST
ETHIOPIA**

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THE DIFFERENCE OF SOIL IN PRODUCTION SYSTEMS OF COFFEE AND THEIR CORRELATION WITH SENSORY QUALITY OF COFFEE ARABICA IN SOUTH WEST ETHIOPIA

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ABSTRACT

In Ethiopia coffee is produced in four production systems namely forest, semi-forest, garden and plantation coffee production systems which are assumed to vary in the intensity of management. But little is known whether these production systems and the associated management practices and soil chemical properties have effect on the different quality parameters of coffee. The study was carried out on four production systems which are located in three different sites and considered independent after the test of spatial out correlation using mental tests. The correlation between soil and cup quality was assessed using Pearson correlation analysis and principal component analysis (PCA) was done for those variables that showed greater than 0.5 coefficient of variation. Those component variables, together with, the other variables with higher Eigenvectors were used for linear regression analysis. Ca+Mg, K, Mg: K, Clay, Na, Av K, Sand are found as the major principal components. The influence of soil nutrients was observed mostly in the forest coffee production system. The influence of some micronutrient was observed in the rest of production system on the quality parameters such as flavor, color, and shape and make.



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