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Introduction : The lack of appropriate management in the production of organic coffees can lead to decrease the productivity. In this study was evaluated assesses the development, productivity and granulometry of coffee intercropped with differents shrub plants in an organic production system.

Materials/Methods: The experiment with *Coffea arabica* in monoculture and associated with *Leucaena leucocephala*, *Ricinus communis*, *Moringa oleifera*, *Tephrosia purpurea* and *Cajanus cajan*. The shrub species were sown in double rows in the center of between rows of coffee. When they reached height of 2.0 m, the shrub plants were pruned at a height of 50 cm. After four years, coffee development, productivity and granulometry were evaluated.

Conclusion/Perspectives: The use of shrub plants associated with coffee is a viable practice in the production of organic coffee because it provides better plant development and a significant increase in productivity with larger beans that means better value on market. This practice can be used in the production of conventional coffees, as a strategy to rationalize the use of inputs.

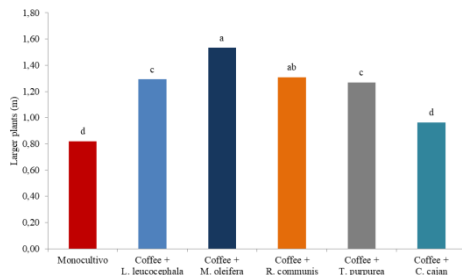


Figure 1: Height of coffee plants in monoculture and associated with shrub species.

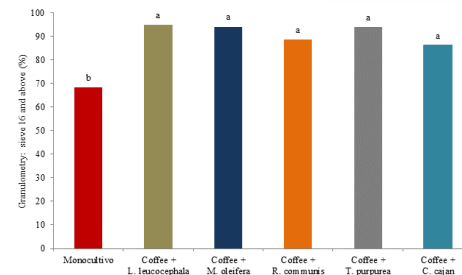


Figure 3: Coffee granulometry in monoculture and associated with shrub species.

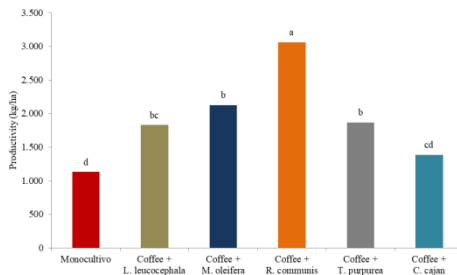


Figure 2: Coffee productivity in monoculture and associated with shrub species.

Results/Discussion: The coffees with *M. oleifera* and *R. communis* presented larger plants, as opposed to monoculture and coffee with *C. cajan*. The highest productivity was for coffee with *R. communis*, and the lowest for monoculture and coffee with *C. cajan*. In granulometry, the percentage of grains in sieve 16 and higher was greater than 86% in coffees with shrub species. In monoculture it was 68%.