



TITLE: Arbuscular Mycorrhizal fungi inoculation associated with organo-mineral fertilizers for improving yield, shelf life and organoleptic properties of strawberry (*Fragaria ananassa*)

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ABSTRACT

Arbuscular mycorrhiza fungi (AMF) can increase the effectiveness of fertilizers, affecting positively strawberry yield and quality. For this reason an experiment was carried to study the effects of AMF alone or in combination with fertilizers on the growth, yield, organoleptic quality and shelf-life under field conditions. Fertilizers and varieties were used as experimental factors with following combinations: (1) fertilizers: control, 100% mineral fertilizer (MF), AMF, AMF+50% MF, AMF+25% MF, 100% poultry manure (PM) and AMF+50% PM. (2): varieties: Camarosa and Charlotte. The obtained results showed that no difference was observed between the two varieties for yield and shelf life. AMF treatment and 100%MF did not significantly improved yield. The reduction of MF by 75% (AMF + 25% MF) in the presence of AMF caused the yield increment of about 65%. Also the reduction of PM by 50% in mycorrhized units gave a yield increment of 49% in comparison to 100% PM. Fruit quality was improve in AMF +25% MF and AMF + 50% PM; In contrarily, 100% and 50% MF reduced the fruit quality. Shelf life evaluation showed low number of days (0.5) in 100%MF to fruit decay. The higher number of days for fruit to start decaying was

obtained in control (7days) and AMF +50% PM (6). Fruit in the AMF +25% MF took 4 days to start rotting. These results revealed that the application of AMF in strawberry production reduced organo mineral fertilizer cost and consequently increase the farmer profitability as far as strawberry, an exotic fruit in Cameroon, has started to gain much importance and has become a luxurious consumption.

BIOGRAPHY

Mandou M. Marie Solange has completed his PHD at the age of 44 years from the University of Yaoundé I, Cameroon. She is Lecturer in the Department of Crop Sciences, Faculty of Agronomy and Agricultural Sciences of the University of Dschang, Cameroon. She has 17 publications that have been cited over 36 times, and her publication h-index is 3. She has been serving as a reviewer in three journals.



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