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INFLUENCE OF MYCORRHIZAL FUNGI AND RHIZOBACTERIAL CONSORTIUM INOCULATION ON QUALITY OF WATER-STRESSED HOT PEPPER FRUITS

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The quality of hot pepper fruits as influenced both by water stress and endomycorrhizal microorganism's inoculation was investigated. To this aim, two different hot pepper genotypes (Cayenne Long Slim and Takanotsume) were grown in pots in two different kinds of green houses, a conditioned glass green house and an unconditioned plastic covered one. The control was represented by uncovered plants. In this trial, some of these were treated with a mixed inoculum, composed by arbuscular mycorrhizal fungi and rhizobacteria. Moreover, treated and untreated these were submitted to two different water supply levels, a normal supply and a limited one. The fruits from different theses were analyzed for their phytochemicals content, particularly for their capsacinoids, carotenoids, polyphenolic compounds and ascorbic acid contents and for their antioxidant capacity, measured by the DPPH *in vitro* test. An influence of genotype and inoculation on the water-stress response of the plants, in terms of phytochemicals biosynthesis, was noticed.

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