

Biochemistry of postharvest spoilage of sweet potato (*Ipomoea batatas* L.). 2. Comparison of cellulolytic enzyme production in cultures and fungi-infected sweet potato tubers

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ABSTRACT

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The study was conducted to determine the production *in vitro* and *in vivo* of cellulases by *Botrydiplodia theobromae* and *Rhizopus oryzae*. Isolates of these organisms were obtained from the postharvest decay of sweetpotato tubers.

Results revealed that *B. theobromae* and *R. oryzae* which were isolated from postharvest spoilage of sweetpotato tubers produced endo- β -1,4-glucanase and exo-V-1,4-glucanase in culture and in fungi-infected tissues of sweetpotato tubers. The optimum temperature and pH for cellulase synthesis and activity were 30°C and pH 6.5, respectively.

Keywords: cellulase, fungi, spoilage, sweet potato