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CLASSICAL CHARACTERIZATION OF MUSHROOM GENETIC RESOURCES FROM TEMPERATE AND TROPICAL REGIONS OF MEXICO

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ABSTRACT

Native strains from temperate, tropical and subtropical regions of Mexico were studied in the laboratory. Strains belonging to the genera *Agaricus*, *Auricularia, Ganoderma*, *Lentinula*, *Neolentinus*, *Pleurotus* and *Volvariella* were characterized on potato-dextrose-agar medium (PDA) using petri dishes. Comparative characterization involved mycelial morphology, growth rate, residual reducing sugar and fresh biomass production. A strain of *Agaricus robustissimus* showed mycelial growth of high density, high growth rate of 0.188 mm/h, regular residual reducing sugar (56.0%), and high biomass production (4.7 g/L/day) in comparison with other strains of the same genus. A strain of *P. djamor* (CP-143) had high growth rate (0.185 mm/h), regular residual reducing sugar (66.0%), and high biomass production (3.7 g/L/day). Differing data were also recorded in *Auricularia fuscosuccinea*, *Ganoderma curtisii*, *G. lucidum*, *Lentinula boryana*, *Neolentinus lepideus*, and *Volvariella* spp. for growth rate (0.055-0.267 mm/h), residual reducing sugar (0-84.0%), and biomass production (1.45-3.72 g/L/day).

Key words: Edible mushrooms, genetic resources, germplasm characterization, fungal biomass, Mexico.