



CULTIVATION OF *GANODERMA LUCIDUM* ON AGRICULTURAL BY-PRODUCTS IN MEXICO*

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ABSTRACT

Most basic and applied studies on *Ganoderma lucidum* have used strains from Southeast Asia. In this work, we studied Mexican genetic resources of *G. lucidum* from the central region of the country. Strains CP-145 and CP-405 were characterized on nine agricultural by-products in petri dishes. The best mycelial growth and colonization were recorded on bean pod (*Phaseolus vulgaris*), maize stem (*Zea mays*), and corn-cob. Several agricultural products, including bean pod, maize stem, and coffee pulp (*Coffea arabica*) were mixed, supplemented with wheat bran, and used as substrate for the cultivation of *G. lucidum*. Basidiocarps were harvested after 70-72 days. The mushroom yield varied from 40.9 to 47.9 g per 0.586 kg dry substrate weight, showing biological efficiencies ranging from 6.9% to 8.2% for strains CP-145 and CP-405, respectively. Native strains of *G. lucidum* can be cultivated using local agricultural by-products as substrate.

Key words: Agricultural by-products, *Ganoderma lucidum*, Mexican genetic resources, mushroom cultivation.

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