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CULTIVATION OF SHIITAKE USING SAWDUST FROM WIDELY AVAILABLE LOCAL WOODS IN ARGENTINA

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ABSTRACT

The cultivation of shiitake (*Lentinula edodes*) in Argentina began in recent years; however, tree species commonly used as substrates in Southeast Asia or North America are not present. We assayed eight types of easily available local woods: "coihue" (*Nothofagus dombeyi*), "lenga" (*N. pumilio*), "ñire" (*N. antarctica*), "roble pellín" (*N. obliqua*), eucalypt (*Eucalyptus camaldulensis*), pine (*Pinus ellioti*), "Paraná pine" (*Araucaria angustifolia*), and willow (*Salix babylonica*). Two strains of shiitake were studied, using experimental blocks (1 kg) which contained the following substrate formulation: 80% sawdust, 10% wheat bran, 10% millet seed, 2% chalk, adjusted to 74% moisture. Blocks were incubated at 25 C for a month, and then subjected to a cold shock at 5 C for 7-10 days in order to promote fruiting. After induction, the blocks were placed in a room at 18±3 C, about 9 h/day of lighting, and watered daily. Fruit bodies were obtained from most wood types studied, with the exception of "Paraná pine" and pine. The strain BAFC-2250 had higher biological efficiencies (BE), which were recorded in "roble pellín" (60.4%), "lenga" (52.3%), and eucalypt (26.5%). The highest mushroom yield was also shown by the strain BAFC-2250.

Key words: ***Lentinula edodes*, shiitake, mushroom cultivation, sawdust, *Nothofagus*, Argentina.**