Investigate the Cause and Control of Black Mold on Bamboo Chopsticks

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In China, most people eat with chopsticks. In spring and summer, chopsticks often go moldy at home.In my experiments, the microbes were scraped from the bamboo chopsticks with black spots, then they were put on bacterial and fungal medium plates respectively, cultivated and separated to get single proper colonies. Different fungi and bacteria with higher occurrence frequency were selected and inoculated back to the sterilized dry bamboo chopsticks. They were cultivated for a few days. The results showed that only fungi were found to make the chopsticks moldy. All these fungi were purified in potato dextrose medium.These fungi turn out to be Penicillium, Aspergillus and Alternaria with morphological characters of colonies, conidia and 18S rDNA sequence analysis. These fungi were cultivated under different PH, temperature, and salt solution in order to get the growth condition of them. The study suggests the following measures to prevent chopsticks getting moldy: clean the chopsticks timely and thoroughly ; put them in hollow chopsticks cages after they are washed cleanly, air -dry and sun-dry to drain the residual water; avoid placing chopsticks in a moist ambience; soak the chopsticks with thick brine, alkali or edible vinegar solution regularly if the weather is too wet to dry the chopsticks.

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