

STRAIN MAINTENANCE AND SPAWN PRODUCTION OF WHITE BUTTON MUSHROOM

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Located near Eger, in Demjén, one of Hungary's largest mushroom farms operates, encompassing composting, mushroom cultivation, canned mushroom production, and the production of spawn for various mushrooms. This presentation focuses on our efforts in mushroom spawn production, particularly emphasizing our experiments concerning strain maintenance of the white button mushroom that most extensively cultivated mushroom in Europe and Hungary. Our experiments prioritize sustainability and economic viability, leading us to develop a protocol for both the production and strain maintenance of white button mushroom mycelium. The process initiates with propagation in Petri dishes, where strains, stored in tubes, are cultured on compost-containing mediums. Strains exhibiting optimal performance in mushroom cultivation are subsequently transferred to millet-based mediums. In the final stage of scale-up, white button mushroom spawn is cultivated in a spawn production facility using a rye-based medium. The spawn is then utilized during the third phase compost production in the compost plant to facilitate bulk spawn run. Acknowledgement: This research was supported by grant 2020-1.1.2-PIACI-KFI-2020-00100 from the National Research, Development and Innovation Office, Hungary. Additional backing came from the Doctoral Student Scholarship Program of the Co-operative Doctoral Program of the Ministry of Innovation and Technology, funded by the National Research, Development and Innovation Fund (grant No. KDP-2023-C2298833 to J. Bajzát).