

MATING SYSTEM OF THE EDIBLE MUSHROOM, *Pleurotus cystidiosus*

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ABSTRACT

Mating system or sexual system determines sexual compatibility in fungi. The aim of this research was to determine the type of mating system of the edible commercial mushroom, *Pleurotus cystidiosus*. The experiments were carried out by crossing each pair of the 14 single spore isolates (SSIs, monokaryons) from one single fruiting body of *P. cystidiosus* in all combinations, on MEA plates, and incubated at 30°C for 3 weeks, followed by clamp connection examinations. The presence or absence of clamps indicates compatible or incompatible mating, respectively. The ratio number of compatible matings to the number of total matings of *P. cystidiosus* was determined to be 1:4. This ratio indicates that the sexuality of the species is an example of tetrapolar (bifactorial) heterothallism. The 14 SSIs were also separated into 4 groups according to the four mating types (A1B1, A1B2, A2B1 and A2B2) of the species.

Keywords: mating system, mating type, incompatibility, tetrapolar, *Pleurotus* spp.



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