EVALUATION OF DIFFERENT PH ON RADIAL GROWTH OF *PLEUROTUS EOUS* (PINK OYSTER MUSHROOM)

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Abstract: Effect of pH on mycelial growth of *P. eous* of oyster mushroom (*Pleurotus* sp.) was studied under *in vitro* conditions in Mushroom Research Laboratory Department of Plant Pathology, College of Agriculture, IGKV, Raipur at 2011-12. Different pH medium shows significant difference in radical growth *P. eous* of among the evaluated pH, significantly higher radial growth of *P. eous* was recorded at pH 6.5 (89.00 mm) and next was pH 6.00 (88.66 mm). However, significantly less (42.16 mm) growth was observed at pH 4.0 followed by 5.0 (48.83 mm). However radial growth *P. eous* were recorded at par in pH 6.5 and pH 6.0. The Mycelial character of *P. eous* for pH 6.5 was whitish pink mycelial growth with regular margin having maximum growth and white mycelial growth with irregular margin in pH 4.0 shows very poor growth.

Keywords: Pleurotus eous pink oyester mushroom pH radial growth

REFERENCES

- Furlan, S. A., Virmold, L. J., Miers, D. A. and Johan, R. (1997). Mushroom strain able to be grow at high temperature and low pH value. *World J. of Microbiology and Biotechnology*, 13 (6):689-692.
- **Imtiaj, A., Jayasinghe, C., Lee, G. W. and Lee, T. S.** (2008-2009). comparative study of environmental and nutritional factors on the mycelial growth of edible mushrooms. *Journal of culture collections*. 6: 97-105.
- **Rawte, H. and Diwan, R.** (2011). Growth Response of *Pleurotus* spp. On different Basal Media and different pH Levels. *Journal of Ecobiotechnology* 3(4): 10-12.
- Shan, H.T., Huang, C. Y., Wan, L.Z., Zhang, B.S., Sun, S. and Yu, R. (2005). Effects of different environmental factors on the growth of *Pleurotus Nebrodensis* mycelium. *Journal of Fungal Research*. 3(4): 19-22.
- Ali, M.B., Islam, M. N., Mian, I. H. and Rahman, M.M. (2004). Influence of physical factors on mycelial growth of oyster mushroom fungus. *Journal of Subtropical Agricultural Research and Development*. 2(3): 86-90.
- **Okwulehie, I. K. and Okwujiako, I. A.** (2002). The Effects of Some Physical and Nutritional Factors on the Vegetative Growth of *Pleurotus ostreatus* var. *florida* Eger. under Tropical Conditions. *Dynamic Biochemistry, Process Biotechnology and Molecular Biology*, 2 (1):41-44.
- Miyauchi, S., Kon, K., Yamauchi, T. and Shimomura, M. (1998). Cultural characteristics of mycelial growth of *Pleurotus eryngii*. *Nippon Kingakukai Kaiho*. 39(3): 83-87.
- **Zhao, G.Y. and Cui, W.** (2002). Determination of optimum pH and temperature for hyphal growth of *Pleurotus ferulae*. *Edible Fungi of China*. 21(5): 18-19.

- **Alexopoulos, G. J. and Mims, G. W.** (1996). Introductory mycology, fourth edition, Jhon wiley & sons, New York.
- **Bano, Z.,S. Bhagya and K.S. Srinivasan** (1980). Essential amino acid composition and proximate analysis of the mushroom *Pleurotus florida* and *Pleurotus eous*. Res. Report submitted to CFTRI, Mysore, India.
- **Benjamin, R. D.** (1995). Mushroom poisons and panaceas, A Hand Book for Naturalists, Mycologists and Physicians Pub. W.H. Freeman and company, New York.
- **Hayes, W.A. and N. Haddad** (1976). The food value of the cultivated mushroom and its importance to the mushroom industry. Mushroom J, 40: 104-110.
- **Jandaik, C.L. and J.N. Kapoor** (1975), Nutritive value of mushroom *Pleurotus ostreatus var. sajor-caju* mushroom J; 36: 408-410.
- **Kapoor, S. Sharma A. Phutella R.P. and Sodhi H.S.** (1997). Physiological studies on *Pleurotus fossulatus* paper presented in Indian mushroom conference 97 at NCMRT, Solan from 10-13th September, PP. 65 (Abstr.)
- **Kendrick, B.** (1985). The fifth Kingdom. Waterloo, on tari mycologue publication, USA.
- **Kezeli, T.A. and L.D. Dzabaridze** (1984). The filamentous fangi. Vol. -4, fungal Tech. London. Bull. Acad. Sci. Georgian, SSA, PP; 226-295.
- **Robinson, R.F. and R;S. Dav-idson** (1959). The large scale growth of higher fungi. Advance applications of microbiology. I: 161-265.
- **Senadore F.** (1990). Free fatty acid and free amino acid content of some mushrooms of science and Agricultural 51: 91-96.
- **Singh, P.K. and Kushwaha** (2007). Effect of different media and pH on mycelial growth of H. ulmarius J. of mycol. And Pl. pathol; 37 (1):177.
- **Singh, R. P.** (1981). Cultivation of *Pleurotus ostreatus var. sajor-caju*. Mushroom sci. II: 667-673.