

RESEARCH ARTICLE

Performance of *Pleurotus florida* on paddy straw substrates and its correlation with prevailing weather conditions

■ R.L. SHARMA* AND M.P. THAKUR

Department of Plant Pathology, Sant Kabir College of Agriculture and Research Station, KAWARDHA (KABIRDHAM) (C.G.) INDIA

ARTICLE INFO

Received : 28.01.2012

Accepted : 09.07.2012

Key Words :

Pleurotus florida ,
Paddy straw,
Environmental conditions,
Spawn run,
Biological efficiency

ABSTRACT

The time required for spawn run by *Pleurotus florida* during Jan.-Feb., Aug.-Sep. and Sep.-Oct. was less and the yield was considerably higher under Raipur conditions. There was strong positive correlation between temperatures (max., min. and ave.) and spawn run, pinning. However, the correlation between temperatures and biological efficiency was found to be negative and non-significant except maximum temperature and biological efficiency. The correlation between relative humidity during morning and spawn run period, pinning was found to be negative and non-significant, whereas, the relative humidity during evening was found to be positive. The environmental conditions prevailing under Bastar plateau were little bit different than environmental conditions prevailing at Raipur. The temperatures (max. min. and avg.) in Bastar plateau were comparatively lower than Raipur for pretty long period of time and humidity was higher resulting in earlier spawn run and better yield in most of the months of *P. florida* cultivation. The correlation between temperatures and spawn run, pinning was found to be positive but non-significant. On the contrary, the correlation between temperatures and biological efficiency was found to be negative and significant except minimum temperature and biological efficiency. The correlation between relative humidity and yield attributing parameters was found to be negative except relative humidity during morning and biological efficiency, but the correlation was non-significant except relative humidity during morning and spawn run. On the other hand, relative humidity during morning and spawn run period exhibited significant negative correlation but it was positive and significant with biological efficiency.

How to view point the article : Sharma, R.L. and Thakur, M.P. (2012). Performance of *Pleurotus florida* on paddy straw substrates and its correlation with prevailing weather conditions. *Internat. J. Plant Protec.*, 5(2) : 213-217.

*Corresponding author:
ramlaxmansharama@yahoo.com

INTRODUCTION

Oyster mushrooms (*Pleurotus* spp.) are a group of edible fleshy fungi belonging to division Basidiomycotina and family Tricholomataceae. It now ranks third among the important cultivated mushrooms of the world. Out of 28 species of *Pleurotus* reported from India (Verma, 1996), more than a dozen are under cultivation in different parts of the country (Balakrishnan and Nair, 1995). A large number of substrates viz., wheat straw, paddy straw, cotton stalks and various other

agro and industrial wastes were evaluated for cultivating different *Pleurotus* spp. by several workers all over the country (Jandaik, 1974; Bano *et al.*, 1987; Khandar *et al.*, 1991; Mehete *et al.*, 1996; Biswas, 1992 and Ram, 1995). But, cereal straws gave consistently good yields. Yields of edible mushroom are known to be greatly influenced by the temperature, humidity and light. These are very important weather factors influencing the period of spawn run, primordia formation and fruiting of edible mushrooms. Temperature was found to influence the mycelial growth and fruiting bodies