



A.V.V.M. Sri Pushpam College (Autonomous)

Poondi– 613 503, Thanjavur-Dt, Tamilnadu

(Affiliated to Bharathidasan University, Tiruchirappalli – 620 024)

**3.7.1 Number of Collaborative activities per year
for research/ faculty exchange/ student
exchange/ internship/ on –the-job training/
project work**

Collaborating Agency:

**Dr. R. Senthil Kumar Associate Professor, Dept. of Microbiology,
PG Extension Centre, Bharathidasan University, Tiruchirapalli**



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Date: 10.06.2016

LINKAGE

For the year 2016-2017

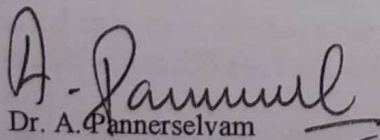
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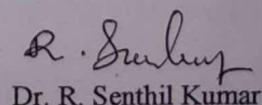
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|--|---|---|

Considering the significance of the noble cause for the student community, we have come forward to collaborate with each other to exchange research knowledge, expertise, laboratory and library facilities to the process of scientific research and education in the field of Biological science. The parties (mentioned above as 1. & 2.) have had preliminary discussion in this matter and have ascertained areas of broad consensus. The parties now therefore agreed to enter in writing these avenues of consensus, under a flexible linkage, and this project aims to fill the gap between knowledge demand and subject expertise related to the mentioned field.

Joint Responsibilities

- Sharing of laboratory facilities, library resources, database etc.,
- Joint Publication of research articles, books, magazines, bulletins etc.,
- Jointly organizing conferences, seminars, symposia and workshops.
- Submitting joint proposals for research funding from agencies like UGC, CSIR, DST and TNSCST.
- Patenting Microbes, Plants patents Procedure, Product development and Novel equipments in Biological sciences (Indian and Foreign Patenting)


Dr. A. Panneerselvam


Dr. R. Senthil Kumar

Original Research Article

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Studies on Cultivation and Biochemical Characterization of *Pleurotus florida*

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ABSTRACT

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Mushrooms are fleshy, spore-bearing reproductive structures of fungi grown on organic substrates and for a long time, have played an important role as a human food due to its nutritional and medicinal properties. Mushrooms are white rot fungi regarded as one of the well known food and possessing various kinds of biochemical compounds. The present study, focused on the cultivation of *Pleurotus florida* mushroom and analysis of its nutritional status. *Pleurotus florida* spawn were produced by using sorghum grains. The mushroom was grown on three different substrates like paddy straw, sugarcane trash, and sorghum stem. Among the three substrates paddy straw was gave highest yield 83.4% of biological efficiency compared with sorghum stem 50.3% and sugarcane trash 44.7%. The biochemical analysis confirms that the protein, carbohydrates, lipids and amino acids in *Pleurotus florida*. All the parameters highly present in paddy straw used as a substrate compared with other substrate.

Introduction

Mushroom cultivation is a profitable agribusiness. Incorporation of non conventional crops in existing agricultural system can improve the economic status of the farmer. Mushrooms are the source of protein, vitamins and minerals and are anti-cancerous, anti-cholesterol and anti-tumors. Sawdust produced highest yield, biological efficiency and number of fruiting bodies, recommended as a best substrate for oyster mushroom cultivation (Shah *et al.*, 2004).

Mushrooms, because of their special fragrance and texture, have been used for

many years in oriental culture as tea and nutritional food (Manzi *et al.*, 1999).

The growth of mushrooms on wheat straw and other substrates, the paddy straw was considered as the best substrate in terms of relative digestibility and nutrient status (Calzada, *et al.*, 1987). Cultivation of *Pleurotus* sp. on different substrates like saw dust, oat meal etc were studied (Wood and Smith, 1987).

Mushroom mycoprotein contains about 85-95% water, 3% protein, 4% carbohydrates,