

# Application of Certain Agricultural By-Products in the *Pleurotus florida* Culture

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**Abstract:** Mushroom cultivation offers attractive prospects of profitability converting lignocellulosic residue from agricultural fields, forests, and industry into protein-rich biomass. In the present investigation Soybean straw, cotton straw, and paddy straw were used as basic materials for the production of *Pleurotus florida*. These straws were mixed with additional supplements such as wheat bran to achieve nitrogen content in the initial material. Because these straws are high in protein and carbohydrates, they supply carbon and nitrogen sources for the growth of *Pleurotus florida*. The highest stripe length observed was 4.03cm, achieved by paddy straws. It has also been noted that the weight of the stripe increases when it is grown in paddy straws which is 4.26 grams. The maximum dry weight of the strip was observed at 0.26 gm with soybean as a substrate. The average maximum Pileus size and weight observed were 54.25 cm and 15.92 gm respectively and pileus dry weight 0.91gm on cotton. The average total yield of *P. florida* was 118.26 on cotton. This study concluded that *Pleurotus florida* can be grown using cotton and paddy straw as a sole substrate.

**Keywords:** *Pleurotus florida*