

INFLUENCE OF COGON GRASS AND KIND OF SUPPLAMANTION THE BIOLOGICAL
EFFICINCY AND STORAGE OF PLEUROTUS OSTREATUS

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ABSTRACT

This study was conducted in the Department of Horticulture, College of Agriculture /University of Baghdad during 2008-2009 season to find the possibility of using the weeds of cogon grass (*Imperata cylindrica*) as a replacement for wheat straw in the cultivation of oyster mushroom [*Pleurotus ostreatus* (Jacq.:Fr.)] because it is hard to find wheat straw around the year and it is high price and it is using as an animal feed. The white strains of oyster mushroom was imported from Jordan as a pure culture and used for spawn production. Supplement of wheat bran, sawdust and crushed cotton seeds was added to the weed substrate to increase the biological efficiency and the storage life of the mushroom. The flowing storage temperatures 2 ± 1 , 4 ± 1 , 8 ± 1 and 23 ± 2 °C was conducted using very accurate incubators. The results showed that addition of 10 % wheat bran to cogon grass substrate increased the yield to 921.50 gm/kg of dry substrate and increased the biological efficiency significantly to 92.15 %. Increasing the percentage of wheat bran to 20% in cogon grass substrate increased protein content to 27.20 %, and this increase was also significant compared with other treatments. Addition of 10 % wheat bran to cogon grass substrate increased oyster mushroom dry matter to 11.48% while the dry matter was 8.78% in the control Studying the effect of storage temperature showed that 2 ± 1 °C was the best degree for postharvest oyster mushroom storage, this temperature reduced the weight loss and inhibit the degradation of the chemical compounds with high food value in the fruiting bodies

such as protein content and phenolic compounds Compared with other degrees. Addition of 20% crushed cotton seeds to the substrate reduced protein loss during storage. Also the addition of 10% crushed cotton seeds to the substrate reduced weight loss to 8.75% compared with 10.71% in the control treatment.