REVIEW ON TRADITIONAL AND MODERN TECHNIQUES IN COMMERCIAL CULTIVATION OF MUSHROOMS

By

D. Isuru Dananjaya

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Department of Biosystem Technology

Faculty of Technology

Eastern University, Sri Lanka

Chenkalady

2024

Approved by

.....

Head

Dep. Of Biosystems Technology,

Eastern University Sri Lanka

Date: 18/9/2024

.....

HEAD
Dept.of Biosystems Technology
Faculty of Technology,EUSL

Dr. (Mrs.) Dulangana Hunupolagama

Supervisor

Dep. Of Biosystems Technology,

Eastern University Sri Lanka

Date: 18/9/2024

ABSTRACT

This study was conducted to review the traditional as well as modern techniques of commercial cultivation of mushrooms that were studied and emphasized by previous researchers worldwide. According to the previous researchers, mushrooms are commonly known as functional foods because of their substantial nutritional, culinary, and bioactive properties, and have a historical record of consumption that stretches back to ancient eras. Around 300 species are suitable for consumption, of which almost 30 have been domesticated and 10 are grown for commercial purposes. Several types of mushrooms are cultivated worldwide. In parallel several different types of commercial mushroom species are currently being grown in Sri Lanka. The main varieties of mushrooms cultivated in the country consist of button mushrooms (*Agaricus bisporus*) and oyster mushrooms (*Pleurotus ostreatus*). In addition, a recently introduced commercial species called Makandura white (MK-white; *Calocybe sp.*) is also being produced. Furthermore, the medicinal Reishi mushroom (*Ganoderma lucidum*) has been effectively cultivated in Sri Lanka.Previous researchers have analyzed many modern and traditional mushroom cultivation techniques and the different methods used in each step of commercial mushroom production and how they differ from each other and through this study, good knowledge can be obtained separately. According to the researches most of the people use log culture, bag culture, and tray culture mainly for the traditional cultivation of mushrooms and use different traditional techniques for each step. Tray culture, bag culture, log culture were widely used as traditional techniques and various traditional techniques were used in different stages of mushroom processing. Modern techniques such as climate controlled growing rooms, tissue culture techniques, molecular biotechnology techniques have achieved economic advantages over traditional techniques. Mushroom cultivation involves a range of specialized techniques, such as sterilizing the substrate, inoculating spores, and using growth chambers etc. Modern techniques are separate from traditional techniques. Mushroom cultivation involves a range of specialized techniques, such as sterilizing the substrate, inoculating spores, and using growth chambers etc.

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