DEVELOPMENT OF AN ALTERNATIVE GROWING MEDIA FOR MUSHROOM CULTIVATION USING COCONUT HUSK WASTE

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ABSTRACT

Cocos nucifera L. belongs to the "Arecacea" family and the every plant part such as coconut, coconut shell, coconut husk and stem are used for many purposes. Coconut husk is identified as a rich source of nutrient. Therefore, it is used as a medium in agriculture. Mushroom cultivation is a profitable agribusiness at present. This research was conducted to study the possibility of using coconut husk as an alternative growing media for mushroom cultivation. Five types of growing media were prepared along with a control media. Different amount of coconut husk, Cow dung, Compost were used while keeping the final weight equal in all five growing media. Those are Control, Treatment 01 (100% coconut husk waste), Treatment 02, Treatment 03, and Treatment 04. Yield, biological efficiency, electrical conductivity, pH value, physical properties and chemical properties of the growing media evaluated better in Treatment 04. The highest yield and biological efficiency given by the Treatment 02 (coconut husk waste + compost) among all the five growing media. pH of that growing media is also in the optimum range The electrical conductivity is also between the optimum ranges Although the water holding capacity of is Treatment 02 lower than control, it is in the acceptable range. The time for fruiting body formation of Treatment 02, is not the minimum time. Minimum time has obtained by the Treatment 01(coconut husk waste). Compost and coconut husk waste combination is possible growing media for mushroom cultivation.

Key Words: Alternative growing media, coconut husk, Mushroom