

**Reduction of C:N Ratio of Coir Dust by Using Oyster Mushroom
(*Pleurotus ostreatus*)**

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Abstract

Coir dust, an agricultural by product, can be used as a plant growing medium after amendment of chemical properties. C: N ratio implies the presence of Carbon in the medium in relation to available Nitrogen. It should be less than 30% to minimize the competition between micro organisms and higher plants for available Nitrogen. An experiment was design to reduce the initial 55.46% C: N ratio of coir dust by using Oyster mushroom (*Pleurotus ostreatus*). Mycelium growth rate on coir was compared with traditional substrate, saw dust. There were no significant difference between mycelium growth rate or contamination percentage between coir dust and sawdust. Bag and bed method were used to test the effectiveness of C: N ratio reduction at field conditions. C: N ratios of both methods were checked in weekly intervals. After six weeks initial C: N ratio was reduced to 33% by bed method and 26% by bag method. According to the results oyster mushroom can successfully be used to reduce C: N ratio of coir dust by bag method.

Keywords: C: N ratio, coir dust, Oyster mushroom