

A NOVEL PRE-TREATMENT TO CELLULOSIC SUBSTRATES FOR SEEDING OYSTER MUSHROOMS

Oyster mushrooms, *Pleurotus* spp., can be directly grown on cellulosic materials. In conventional methods, pasteurisation of the substrates is a pre-requisite to ward off the competing molds during spawn run. Pasteurisation is normally done by treating the materials in hot water (80°C) for about an hour followed by chemical treatment with bavistin and formaldehyde.

Even though the method of mushroom production is quite simple, for promoting this technology to farmers' level under Indian conditions, the pretreatment step becomes extremely



Oyster Mushroom Crop on Blended Cotton Stalks

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difficult and costly. To process 100 kg of cotton stalks or rice straw, about 1000 litres of water at 80°C will be required every day. CIRCOT evolved a new method, which is cost effective and easy to adopt.

CIRCOT Method

- ❖ *The raw materials (cut to 3-5 cm fragments) are subjected to anaerobic treatment with microbial consortium for just 48 hours at room temperature.*
- ❖ *Two anaerobic digesters are employed to process the materials everyday.*
- ❖ *The treated materials are washed with fresh water and seeded with active spawn of *Pleurotus* spp.*

The initial investment on the construction of the digesters can be recovered in just one year.



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