Conference Proceedings Volume 2703, AIP Conference Proceedings

Effect of Different Substrates and White Oyster Mushroom Loading on Production of Fungal Foam

Abstract

In this study, agricultural wastes including rice husks, banana leaves and teak leaves were used to produce fungal foam through the cultivation with Pleurotus ostreatus fungi. The fungi are inoculated using different substrates and inoculum loadings. The mechanical properties of the foam produced were analysed. The best substrate and inoculum loading were proposed. Among the three substrates used, banana leave produced the best fungal foam in term of mechanical properties at 10 % w/w inoculum loading. The fungal foam can withstand forces high up to 30458.52 gF and have the resilience and springiness of 0.381 and 0.771, respectively. In summary, banana leave fungal foam is suitable as an alternative to the commercial Styrofoam.