

عنوان مقاله:

From Waste to Utilization : Assessing the Feasibility of Using Post-Mushroom Substrate and Other Agro-Wastes for the Mass Production of Entomopathogenic Fungi

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خلاصه مقاله:

Production of high-quality inoculum in sufficient quantities is crucial for biocontrol programs. Entomopathogenic Fungi (EPF) are highly suitable biocontrol agents due to their adaptability, mode of action, persistence, and wide host range. This study aimed to evaluate the suitability of agro-wastes, including sugarcane bagasse, paddy husk, Post Mushroom Substrate (PMS), and sorghum grains with and without 10% molasses fortification, for mass production of four EPF isolates (*Cordyceps fumosorosea*: MT99932, *Beauveria bassiana*: MT99933, *Akanthomyces lecanii*: MT99935, and *Hirsutella thompsonii*: MT99936) isolated from two agro-climatic zones in Karnataka, India. The study employed solid-state fermentation. Results showed that sorghum grains fortified with 10% molasses had the highest mycelial growth and spore production of all isolates, followed by PMS with 10% molasses (TY). Fortification with molasses positively influenced the growth and spore production of EPF. The results indicated that while sorghum grains were the best choice for mass production, PMS fortified with molasses also had great potential as an alternative substrate.

کلمات کلیدی:

.Beauveria, Lecanicillium, Biocontrol, Sorghum grains, Sugarcane bagasse

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