

**PRESERVATION OF FUNGAL PATHOGEN ISOLATED FROM MAJOR
CROP IN MALAYSIA USING PADDY HUSK AND GRAIN MILLET**

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ABSTRACT

PRESERVATION OF FUNGAL PATHOGEN ISOLATED FROM MAJOR CROP IN MALAYSIA USING PADDY HUSK AND GRAIN MILLET

Fungal pathogen of rice blast disease (*Magnaporthe oryzae*), cocoa black pod disease (*Phytophthora capsici*), and basal stem rot disease (*Ganoderma boninense*) are among the most damaging pathogen identified in Malaysia. One main constrain of this study on these pathogens is to preserve their viability for storage. Conventional storage using agar media is not suitable for long term storage and has high chances of contamination. This study has been conducted to determine the suitable storage system for long term preservation of fungal culture that could maintain the viability of the pathogen with low contamination rate. Two different types of organic media were used which are millet and paddy husk to preserve *Magnaporthe oryzae*, *Phytophthora capsici* and *Ganoderma boninense*. The timeline for viability test was 8 weeks. For viability test, 10 grains of fungal inoculum were placed on PDA media and the numbers of germinated grains were recorded after 5 to 7 days. The results of present study showed that all fungal species were viable in millet and paddy husk, *Phytophthora capsici* inoculum showed the highest viability rate among all fungal species in paddy husk and remain viable until week 8. Meanwhile, *Ganoderma boninense* inoculum showed the highest viability rate in Millet. The contamination rate for both paddy husk and millet inoculum were very low for all fungal species. As a conclusion, paddy husk and millet have a great potential as an alternative for storage of fungal pathogen.

Keyword : Fungal pathogen, storage, viability rate, contamination rate