## B-10 Mass culture and induced sporulation of *Metarrhizium* sp. pathogenic on insects

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*Metarrhizium* spp. can be used as biocontrol agents of insect pests. Objectives of this study were to examine the suitability of low cost growth media for mass culture of *Metarrhizium* isolated from *Oryctes rhinoceros* and *Plusia eriosoma* and to examine the effect of light period, ultra violet (UV) light exposure and time period before exposing to air on their sporulation.

Parboiled rice, corn meal, paddy husk and coir dust were evaluated as primary culture media. Parboiled rice, parboiled rice mixed with corn meal, were further evaluated by mixing with or without an extract of bean, carrot and tomato. The media with vegetable juice produced significantly higher mycelial growth and sporulation. Parboiled rice, corn meal (2:1) with vegetable juice medium showed the highest sporulation. Sporulation of *Metarrhizium* isolates was examined under 0, 12 and 24 h light/day. Both isolates produced significantly higher sporulation at 12 h light/day. Effect of UV light on sporulation was measured at 0, 2, 4 and 6 min exposure at 3 days after inoculation. Isolate from *O. rhinoceros* showed better sporulation at 2 min exposure than unexposed. Reduced sporulation was observed with increasing UV exposures (4 and 6 min) in all culture media except the parboiled rice with vegetable juice. Isolate from *P. eriosoma* showed increasing sporulation with increasing UV exposure in media of parboiled rice with vegetable juice and parboiled rice with corn meal. The other 2 media showed no clear relationship between sporulation and UV exposure time period. Effect of aeration on sporulation was also examined, aerating the cultures at 0, 5, 7 and 10 days after inoculation. Highest sporulation was observed in all cultures exposed at 7 days after inoculation.