

Survivability of *P. oxalicum* T3.3 bioformulation on carrier materials and storage temperature

ABSTRACT

Good bioformulation play crucial roles in the successfully of commercialize biological control products. The development of bioformulation is necessary to improve product stability, delivery and bioactivity. The aim of this study is to assess the shelf life of *P. oxalicum* T3.3 conidia in the different ratio(1:1,1:2,2:1) of Biochar:Biocompost (BcBp) and Peat:Vermiculite (PtVm) and temperature (4°C and room temperature) for 6 months. The results showed that *P. oxalicum* T3.3 was able to sustain highest viable cell (CFU) at 4°C storage temperature. BcBp and PtVm have the highest cell viability at ratio 2:1 and 1:1, respectively. Both BcBp and PtVm showed potential carriers for the development of biofungicide for agriculture purposes.

Keyword: Biochar; Formulation; Peat; Penicillium; Shelf life