Short Communication

MYCELIUM PRODUCTION OF CORDYCEPS MILITARIS THAI STRAINS ON THAI RICE VARIETIES MIXED WITH YOLK AND PUPAL POWDER OF THAI SILKWORM, BOMBYX MORI

Siripuk Suraporn\textsuperscript{1} and Chandasekar Raman\textsuperscript{2}

\textsuperscript{1}Department of Biology, Faculty of Science, Mahasarakham University, Maha Sarakham, Thailand.
\textsuperscript{2}Department of Biochemistry and Molecular Biophysics, Kansas State University, Manhattan, USA.

E-mail: Siripuk\_s@yahoo.com

ABSTRACT

Four new isolates of Cordyceps militaris (BCC18247, BCC17991, BCC17944 and BCC27815) and Paecilomyces tenuipes were investigated for mycelium production on various culture media. We used fungal pathogen of Bombyx mori, Beauveria bassiana as positive control. C. militaris strains and P. tenuipes were grown on the PDA for 5 days and transferred to 5 recipes of culture media of different varieties of Thai rice viz., plain rice, black rice, brown rice, glutinous rice and rice bran, supplemented with pupal powder of Thai silkworm, Nang Lai and yolk of chicken (Gallus gallus domesticus). The dead pupae were used as insect host of fungi. Mycelial growth of Cordyceps strains was determined by fresh weight of mycelia. The mycelial growth of C. militaris strains was detected on dead pupae of silkworm and on the medium comprising of pupal powder, yolk and glutinous rice on the 14\textsuperscript{th} and 4\textsuperscript{th} day, respectively, after fungal inoculation. Only the fruiting body of P. tenuipes was found growing up on pupal cadavers but not of C. militaris strains. The most effective recipe for mycelial growth was observed as glutinous rice + pupal powder + yolk for all C. militaris strains with the maximum growth reported for BCC17944.

Key words: Bombyx mori, Cordyceps militaris, mycelium, Thai rice.