

The effect of agro residues medium as a carbon sources on fibrinolytic enzymes activity produced by *Bacillus megaterium* BM 9.1

Abstract

The study effect of agro residues medium as a carbon sources on fibrinolytic enzyme activity produced by *Bacillus megaterium* BM 9.1 was done by using fibrin plate method. *Bacillus megaterium* BM 9.1 grown on agro residues medium with Solid State Fermentation. The fibrinolytic enzymes activity is declared by fibrinolytic index. Fibrinolytics index is the comparisson between clear zones and wall diameters. From various carbon sources tested, *Bacillus megaterium* BM 9.1 which is grown in banana peel, pineapple skin, corn husk, rice bran and corn cob could produce fibrinolytic enzymes. Optimum fibrinolytic activities found in medium combination nutrient agar and banana peel at fibrinolytic index $4,95 \pm 0,08$ ($p < 0,05$). If compare with nutrien agar is 117,58 %. Optimation concentration of banana peel was done at concentration of 0,5 %, 1 %, 2 % and 4 % and the fibrinolytic index was found respectively according to $4,26 \pm 0,11$; $4,32 \pm 0,03$; $4,61 \pm 0,03$; and $4,35 \pm 0,05$. The optimum fibrinolytic activity was found in medium banana peel consentration 2 %.

Keyword : agro residues, medium, carbon sources, fibrinolytic activity, *Bacillus megaterium* BM 9.1