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Effect of Culture Conditions on Beta 1- 4 Endoglucanase Production by *Bacillus* sp.(Strain RL1)

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Abstract : : *Bacillus* sp. (Strain RL1) isolated from mountain soil was examined. This study aims to determine the effect of different carbohydrates and their concentrations {Wheat bran, Corn cob, Corn stem, Pineapple and CMC at range 0.5- 2.5 % (w/v)} as carbon sources for production of endoglucanase. Results showed that pineapple gave the highest activity 2.6993 U/ml, while the lowest activity with CMC 0.1367 U/ml. In the present investigation the endoglucanase activity was supported by 200rpm agitation rate with Corn cob and Corn stem, while 0rpm (static) revealed the best condition for endoglucanase activity using Pineapple and CMC as a sole carbon source. Within the five substrate concentrate the enzyme activity was more in 2.5 % concentration. From the overall result, it was observed that among the five carbohydrate substrate, the enzyme activity was more with Pineapple followed by Wheat bran> Corn cob>Corn stem > CMC.

Keywords: Beta 1- 4 Endoglucanase, *Bacillus* sp.(Strain RL1).

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