

A Novel Cost-effective Fermentation Medium for the Production of *Bacillus thuringiensis* subsp. *Israelensis* (Bti) for Mosquito Control

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ABSTRACT: An attempt was made to develop a cost-effective environmental friendly culture medium for Bti, based on inexpensive, locally available raw materials including sugarcane molasses and rubber serum water. Among these raw materials, the biomass production of Bti, sporulation and toxin synthesis was found best in rubber serum water in combination with sugar cane molasses. Bioassays were carried out using mosquito larvae of *Culex quinquefasciatus*, to clarify the potency of Bti produced in each medium. The present investigation suggests that rubber serum water based culture medium can be used as an alternative for industrial production of Bti in mosquito-control programmes. Thus, this study possesses the dual benefits of efficient utilization of an agro-industrial by-product (RSW) and effective production of Bti based public health bio pesticide.

Keywords: Bti, rubber serum water, *Culex quinquefasciatus*, *Clogmia albipunctata*

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