A

DISSERTAION PROJECT

ENTITLED

ISOLATION OF AFLATOXIN DEGRADING BACTERIA FROM SIOL

Submitted to

PARUL UNIVERSITY OF APPLIED SCIENCES PARUL UNIVERSITY



As a Partial Fulfilment of the Requirement or the degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

Submitted by:
Nitin Shukla
181127202005

Academic Year: 2019-20

Guided by:

Dr.Inampudi Sailaja Head of Department of Biochemistry PIAS, Parul University

ABSTRACT

Aflatoxins are produced by *Aspergillus flavus* and *Aspergillus parasiticus*. These are secondary metabolites toxic in nature and belong to the family mycotoxins. AFB1 is the most potent carcinogen which gave serious effects on health and economy of developing country. There are physical and chemical methods utilized to degrade aflatoxins but they are highly persistent and show high resistance to degradation such methods also deteriorate quality of agricultural feeds. It is difficult to remove aflatoxin from food chain. Utilization of modern degradation methods which uses biological microorganisms to degrade and reduce aflatoxin to a less toxic form. Degradation by bacteria is an affective mode of approach to tackle aflatoxins which is feasible and cost effective. This study includes isolation of bacteria from field soil and their characterization.

Keywords: Aflatoxins, bacteria, biological degradation and enzymes.