

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELGAUM**



A project Dissertation submitted on

**“Optimization of Gibberellic acid (GA3)
production & Stability studies of Gibberellic acid”
(Sponsored BY K.S.C.S.T., Bangalore)**

In partial fulfillment for the award of Degree of Engineering in Biotechnology

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ABSTRACT

Plant hormone Gibberellic acid (GA₃) which is also produced from various fungi is used as an alternative to increase crop yield and because of its eco friendly characteristics, it is used in organic farming as approved by the FDA (Food and Drug Administration). The use of GA₃ in India is limited because of its rare production and high international market value of about 25-36\$ per gram of GA₃ which is due to the tedious downstream processing. This project aims to reduce the time and cost of production of GA₃ such that it becomes economical for any Indian farmer.

The project focuses on optimizing the parameters such as the inoculum's size, carbon source concentration and inoculum's age in the production of GA₃. Stability studies on GA₃ at different temperature and pH were carried out.