

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELGAUM



A Project Report on

**STUDY OF ANTIMICROBIAL ACTIVITY OF AMARANTHUS AND ITS
APPLICATION IN THE DEVELOPMENT OF DRUGS FOR SOME
COMMON DISEASES**

A project Report Submitted for the award of the degree of
Bachelor of Engineering
in
BIOTECHNOLOGY

Submitted By

Amitkumar khamitkar USN: 1NC06BT005

Under the Guidance of

Dr. G. Lokesh

Scientist B

Central TASAR research & training institute

(Central Cells Board Government of India)

Ranchi – 8353035

Dr. Y. P. Nagaraj

Lecturer,

Dept. of Biotechnology,

Bangalore – 562 110



NAGARJUNA

COLLEGE OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF BIOTECHNOLOGY
NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY
VENKATAGIRI KOTE DEVANAHALLI BANGALORE – 562 110

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ABSTRACT

The phytochemicals can be exploited as natural antimicrobial agents. The main advantage of natural agents is that they do not enhance the 'antibiotic resistance' a phenomenon commonly encountered with the long term use of synthetic antibiotics. The higher plants and their extracts are used to treat infections and development of drug. Contrary to the synthetic drugs, antimicrobials of plant origin are not associated with many side effects and have an enormous therapeutic potential to heal many infectious diseases.

Amaranthus spinosus commonly known as Spiny amaranth or Pig weed, is an annual or perennial herb. Though whole plant is used as laxative and traditionally boiled leaves and roots of *Amaranthus spinosus* are given to children as laxative. However the drug is also used traditionally as diuretic, antidiabetic, antipyretic, anti-snake venom, antileprotic, and anti-gonorrheal.

Amaranthus viridis is a cosmopolitan species commonly known as Slender Amaranth or Green Amaranth. A fresh leaf of *A. viridis* has been used as vermifuge, antiinflammatory of the urinary tract and in venereal diseases.

Keywords: Phytochemicals, Extracts, Zone of Inhibition, MIC (Minimum Inhibitory Concentration), Antibiotics.