



QUARTERLY RESEARCH PROGRESS REPORT

QUARTER: (2nd)

**Research Title: CHARACTERIZATION AND QUALITY ASESMENT OF
LOCALLY MADE BIOFERTILIZERS**

I. Project Objectives:

General:

To evaluate the quality, characteristics, and effectiveness of different biofertilizer products developed at VSU.

Specific:

1. To determine the temporal variation in microbial population density in biofertilizers developed at VSU (Study 1)
2. To characterize the microbial isolates obtained from the biofertilizer products of VSU (Study 1)
3. To profile the microbial species richness of the biofertilizer products of VSU using molecular approach (Study 1)
4. To determine the temporal variation in physico-chemical and biochemical composition of biofertilizer products of VSU (Study 2)
5. To evaluate the efficacy of biofertilizer products of VSU in the field (Study 3)

II. Relevance to VSU & College's Thrust and Priorities: Relevant

III. Highlights of accomplishments within the quarter

A. Targets for the quarter

- Harvesting and data collection of the pot experiment on the effect of EM (with varying storage duration) on the yield of lettuce (in a soil set-up)
- Conduct pot experiment on the effect of EM (with varying storage duration) on the yield of lettuce (in a hydroponics set-up)
- Detection of coliform in harvested plants grown in EM through assay.
- Conduct *in vitro* efficacy tests of isolated microbes from EM biofertilizer against *Ralstonia* and *Xanthomonas* species (both economically important plant pathogen in vegetables).