



QUARTERLY RESEARCH PROGRESS REPORT
QUARTER: 3rd

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:

Study 1: Microbial and Molecular Analysis of Biofertilizers Developed at VSU

1. To determine the temporal variation in microbial population density in biofertilizers developed at VSU.
2. To characterize the microbial isolates obtained from the biofertilizer products of VSU.
3. To profile the microbial species richness of the biofertilizer products of VSU using molecular approach.

*Study 2: Temporal Variation in Physico-Chemical and Bio-Chemical
Composition of Locally made Biofertilizers*

1. To determine the temporal variation in physico-chemical and biochemical composition of biofertilizer products of VSU.

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

III. Highlights of accomplishments within the quarter

A. Targets for the quarter

Study 1: Microbial and Molecular Analysis of Biofertilizers Developed at VSU

- Culture and characterize visible fungal growth from VSU biofertilizer products.
- Contact suppliers/agencies for molecular sequencing and analysis.

Study 2: Temporal Variation in Physico-Chemical and Bio-Chemical Composition of Locally made Biofertilizers

- Collection/Production of biofertilizers developed at VSU;
- Determine the temporal variation in physico-chemical composition of biofertilizers developed at VSU;
- Submit liquid formulations of biofertilizers to CASL for physico-chemical analysis.

B. Highlights of accomplishments

Study 1: Microbial and Molecular Analysis of Biofertilizers Developed at VSU

- Isolated, purified and characterized visible fungal growth from EM and Vermicast.
- Conversed with suppliers, requested quotations for DNA sequencing analysis and processed PPMP for species identification.

Study 2: Temporal Variation in Physico-Chemical and Bio-Chemical Composition of Locally made Biofertilizers

- Prepared and harvested samples of liquid (LABS and IMO2) and solid (IMO6, Vermicast and EM) formulations of biofertilizers at different time points for the determination of temporal variation of its physico-chemical composition;
- Determined the physico-chemical composition (pH, moisture content, OM content, total Phosphorous and total Nitrogen content) of solid biofertilizers (IMO6, Vermi and EM) stored at different time points.
- Submitted liquid formulation of biofertilizers (LABS and IMO2) stored at different time points to CASL for physico-chemical analysis.

Other Accomplishment(s):

- Prepared and presented research outputs in the Level II VICARP-RDE Review.
- Prepared and submitted an abstract in a conference to present research output.

IV. Physical Report of Operation
A. Research Program

	Particulars/Name and Brief Description of Utilized/ Commercialized Technologies	Number
Outcome Indicator		
1. Number of research outputs utilized by the industry or by other beneficiaries	None	
Output Indicator		
1. Number of research outputs completed within the year	None	
2. Percentage of research outputs published in internationally-referred or CHED recognized journal within the year	None	

B. Technologies/Information patented and commercialized

Technology Invention(s) New Information	Invention Patent Number	Date of Issue	Utilization of Invention		Name of Commercial Product
			Development	Service	
A. Technology Invention(s)	NA				
B. New Information	NA				

C. Research papers published (Identify if articles were for Research, Extension, Innovation or MSc/ PhD Studies)

	Title	Author (s)	Date/Year/Publication/ Publisher	Remarks (If Research, Extension, Innovation, Thesis, MSc/PhD)
a. Refereed Journal	None			
Institutional				
National				
International				
b. Semi-popular publ'n (newsletter, etc.)				
c. Popularized publ'n (technoguides, etc.)				
d. Book Chapter/s				
e. Books				

D. Citation

Research Output as Cited by Other Researcher(s) in Journal Activities									
Title of Research Output/ Published Journal Articles/ Book	Title of Journal & Vol. Issue/ Year	Keywords	Researcher (s)	Citation Details					
				Author(s) Who Cited the Research Output	Title of Article Where the Research Output Was Cited	Title of Journal	Vol. / Issue / Page No.	City/ Year Published	Publisher
None									

V. Issues, Problems, and Recommendations

- Prolonged power outage in NARC Diagnostic Laboratory hinder the PCR assay activities of the study. Extension wires were used to facilitate laboratory activities.

Submitted by :

ROBELYN T. PIAMONTE

Project Leader

Endorsed by :

JEROME O. ARRIBADO

Center Director

Date Submitted : _____

Received by OVPREI-RPO: _____

Date Received : _____