



**QUARTERLY RESEARCH PROGRESS REPORT
QUARTER: THIRD QUARTER (July - September 2022)**

Research Title: INTEGRATED NUTRIENT MANAGEMENT FOR HORTICULTURAL CROPS: Effects of Bio-fertilizers on soil properties and productivity of Arugula (*Eruca vesicaria*) and other herbs (ORP10 - CAHO NM 14-1420-11)

I. Program/Project/Study Objectives

Project Objectives:

Develop a nutrient management strategy that could help reduce or arrest soil degradation in horticultural crop production area of VSU.

Specifically this project aims to:

1. Evaluate the effectiveness of BOF application on the growth and yield performance of the different horticultural crops (e.g. arugula) grown at the Eco-FARMI demonstration farm.
2. Assess nutrient and microbial activity in the soil of the field trial experiment.

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

III. Highlights of accomplishments within the quarter

A. Targets for the quarter

1. Analyses of soil and tissue samples of Arugula planted in upland area.
2. Planting of Arugula in lowland area
3. Gathering growth parameters of Arugula planted in lowland area
4. Harvesting Arugula planted in lowland area
5. Collection of final soil and plant samples for soil and tissue analyses
6. Analyses of soil and tissue samples of Arugula planted in lowland area

B. Highlights of accomplishments

1. Analysed soil pH, nitrogen, and organic matter content of samples from upland area

2. Planted Arugula in lowland area
3. Gathered growth parameters (e.i. plant height, leaf length, leaf width, and no. of leaves) of Arugula planted in lowland area
4. Harvested Arugula planted in lowland area and gathered data such as biomass and yield
5. Collected, air dried, and sieved soil and tissue samples of Arugula planted in lowland area
6. Analysed soil pH, nitrogen, and organic matter content of samples from lowland area

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	N/A	
Output Indicator		
1. Number of research outputs completed within the year	N/A	
2. Percentage of research outputs published in internationally-referred or CHED recognized journal within the year	N/A	

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)	NONE				
B. New Information	NONE				

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				

Vision: A globally competitive university for science, technology, and environmental conservation.
Mission: Development of a highly competitive human resource, cutting-edge scientific knowledge and innovative technologies for sustainable communities and environment.

International				
b. Semi-popular publ'n (newsletter, etc.)	NONE			
c. Popularized pub'ln (technoguides, etc.)	NONE			
d. Book Chapter/s	NONE			
e. Books	NONE			

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

1. Delayed delivery of chemicals and other laboratory materials such as sulfuric acid and filter paper due to problems encountered during procurement processes.
2. Delayed field experimental set-up due to unfavorable weather condition

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Director, Eco-FARMI

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Received by OVPREI-RPO: _____

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