

Althea Lyka L. Lisondra

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Personal Statement

As an aspiring plant biotechnologist, I seek to gain hands-on laboratory experience in an institution that shares my core beliefs and principles regarding food security and the role of agriculture in addressing issues such as malnutrition in the Philippines. I have interned in the Crop Biotechnology center back in 2023 and have had experience working with the institution. My training at the Crop Biotechnology Center allowed me to advance in my laboratory skills beyond the classroom.

Relevant Skills

Technical Skills

- Proficiency in handling basic laboratory techniques such as: Aseptic technique, solution preparation, media preparation, pipetting, microscopy, chemical handling, and sterilization, equipment calibration
- Ability to perform molecular biology techniques such as: DNA extraction, polymerase chain reaction (PCR), Agarose Gel Electrophoresis (AGE) and DNA visualization
- Experience in writing technical and scientific reports
- Hands-on experience with soil sample collection and basic soil physico-chemical analysis (pH, total organic matter, available phosphorus etc.)
- Ability to utilize Microsoft Office tools (MS Excel, MS Word, MS PowerPoint)
- Experience in handling Bioinformatics and Metagenomic data and tools (MEGA)
- Proficiency and experience in coding languages such as: Python, C++
- Developed and deployed web applications using HTML

Experience and Relevant Training

Crop Biotechnology Center – Philippine Rice Research Institute

Science City, Munoz, Nueva Ecija.

On the job training program (July – August 2023)

- Conducted rice phenotyping and molecular identification through DNA extraction of rice samples, polymerase chain reaction (PCR) to amplify the samples, then viewed the samples through Agarose Gel Electrophoresis (AGE)
- Conducted basic bacterial and plasmid transformation, as well as optimizing PCR conditions to yield the best quality of DNA
- Field experience with planting CBC developed rice varieties

Horticulture Laboratory

Visayas State University – DA Biotech Scholarship program summer training

- Hands-on training with culture media preparation, preparation of plant samples, as well as inoculation.
- Experienced the process of optimizing culture media to minimize bacterial and fungal contamination

National Coconut research Center Laboratory

Visayas State University – DA Biotech Scholarship program summer training

- Hands-on training in the preparation of Macapuno embryo samples for inoculation
- Optimized culture media for Macapuno embryo samples

Plant Disease and Diagnostics Laboratory

Visayas State University – DA Biotech Scholarship program summer training

- Cultured *fusarium* strains and identified common plant pathogens
- Used light microscopes to observe diseased plant tissues, observe pathogen structures, and disease symptoms

Education

Bachelor of Science – Plant Biotechnology

Visayas State University (2020-2024)

- Cumulative GPA: 1.45
- DA Biotech scholar (2020-2024)
- Amaranth writer – Visayas State University official school publication
- Visayas State University Debate Society – Member
- Consistent President’s Lister (2022-2024)
- Relevant Coursework: Plant physiology, Plant breeding, Biotechnology for plant improvement, Environmental Science, General Botany, Organic Chemistry, Quantitative Inorganic Chemistry, General Microbiology, Biochemistry, General Zoology, Genetics, Statistical Methods, Introduction to Computing, Proteins and Nucleic Acids, Cell and Molecular Biology, Recombinant DNA technology, Computational Biotechnology (Bioinformatics), Industrial Chemistry, Bioethics, Risk Assessment and Management, and Trends in Biotechnology
- Undergraduate thesis: “Metagenomic profiling of healthy and infected Abaca (*Musa textilis* Nee)”

Humanities and Social Sciences

Caraga Regional Science High School (2014-2020)