

CURRICULUM VITAE

MARI NEILA P. SECO

Master of Science in Plant Pathology

Registered Agriculturist

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PERSONAL INFORMATION

Date of Birth : November 12, 1996
Nationality : Filipino
Civil Status : Single
Sex : Female
Home Address : Brgy. Villa Solidaridad, Baybay City, Leyte, 6521, Philippines

EDUCATION

Master of Science in Plant Pathology 2016 – 2019
Minor in Molecular Biology and Biotechnology
University of the Philippines Los Baños (UPLB)
Los Baños, College, Laguna 4031

Bachelor of Science in Agriculture 2012 – 2016
Major in Plant Protection specializing in Plant Pathology
Magna cum laude
Visayas State University (VSU)
Visca, Baybay City, Leyte 6521

Certificate of Agriculture Science (BSA Ladderized Program) 2012 – 2014
With High Honors
Visayas State University (VSU)
Visca, Baybay City, Leyte 6521

High School 2008 – 2012
With Honors
Visayas State University Laboratory High School (VSU-LHS)
Visca, Baybay City, Leyte 6521

TEACHING WORK EXPERIENCE

Instructor III and Crop Protection Lab-in-charge Feb 2023 – present
College of Agriculture and Forestry
Central Philippines State University
Kabankalan City, Negros Occidental 6111

- Handles courses in basic crop protection, genetics, and biotechnology
- Handles Master of Science students
- Advises and assists students in their academic and research activities
- Propose, conduct, and collaborate on relevant research and extension activities
- Performs other tasks and assignments by the University

Part-time Instructor

Mar 2022 – Jan 2023

College of Agriculture, Forestry and Environmental Sciences
Western Philippines University
San Juan, Aborlan, Palawan

- Handled courses in basic crop protection

RESEARCH WORK EXPERIENCE

MS Graduate Fellow (Senior Science Research Specialist)

Aug 2019 - Dec 2022

Department of Science and Technology- Science Education Institute (DOST-SEI)

Graduate Career Incentive Program

DOST, Bicutan, Taguig City

Office: Plant Pathology Laboratory

Institute of Plant Breeding

College of Agriculture and Food Science

University of the Philippines Los Baños

- Conducted laboratory activities to identify fungal pathogens associated with corn seeds during corn grits production, specifically isolation, purification, and identification of corn seed pathogens by morpho-cultural and molecular techniques and multiple gene analysis.
- Conducted molecular analyses and experiments to identify mycotoxigenic fungi and detect mycotoxin contamination in corn samples using ELISA and determine the factors affecting the development of fungal pathogens in corn seeds during storage.
- Conducted experiments on the effects of various control measures to mitigate the development and contamination of fungal pathogens.
- Prepared reports and manuscripts related to the project and presented findings in scientific conferences or journals.
- Monitoring Diseases of Cultivated Crop Varieties in the Philippines

University Research Associate I

Jul – Aug 2019

Plant Pathology Laboratory

Institute of Plant Breeding

College of Agriculture and Food Science

University of the Philippines Los Baños

Affiliate MS Thesis Research

Jul 2017 – Feb 2019

International Rice Research Institute

University of the Philippines Los Baños

Phenotypic Reaction and Expression of Wheat-Durable Resistance Gene *Lr67* in Rice (*Oryza sativa* L.) Against Fungal Pathogens

Undergraduate Thesis

Jun 2015 – Apr 2016

Visayas State University (VSU)

Characterization and Identification of *Phytophthora* Species Affecting Eggplant (*Solanum melongena* L.) and Tomato (*Solanum lycopersicum* L.) in Leyte, Philippines

High School Research

Jun 2011 – Mar 2012

Visayas State University Laboratory High School (VSU-LHS)

Seed Germination of Abaca (*Musa Textilis* Nee) var. *Inosa* as Affected by Different Storage Temperatures and Longevity of Storage

SCHOLARSHIP/HONORS/AWARDS

Scholarship

2017 – 2019	Affiliate MS Thesis Research Scholarship Rice Breeding, International Rice Research Institute Los Baños, Laguna 4031
2016 – 2018	DOST-ASTHRDP Scholarship Department of Science and Technology- Accelerated Science and Technology Human Resource Development Program- National Science Consortium (DOST-ASTHRDP-NSC), Master of Science in Plant Pathology, UP Los Baños
2012 – 2016	University Scholarship Visayas State University
2012 – 2013	Government Employee VSU Dependent Scholarship Visayas State University

Honors

2012- 2016	Consistent University Honors Visayas State University
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Awards

Apr 1, 2023	Young Investigator in Plant Pathology (YIPP Fellow) The Plant and Soil Health Research Unit Department of Biology, College of Sciences De La Salle University
Jan 27, 2022	NS Ramon C. Barba Poster Award 2nd IPB-JRO Scientific Conference Institute of Plant Breeding, College of Agriculture and Food Science, University of the Philippines Los Baños
Sept 18, 2021	2021 Young Investigator in Plant Pathology (YIPP) Plant Pathology Laboratory, Institute of Plant Breeding, College of Agriculture and Food Science, University of the Philippines Los Baños
Nov 18, 2020	2020 Young Investigator in Plant Pathology (YIPP) Plant Pathology Laboratory, Institute of Plant Breeding, College of Agriculture and Food Science, University of the Philippines Los Baños
Apr 19, 2020	Special Award for Outstanding Scholarly Achievement (Q1 of 2020) Plant Pathology Laboratory, Institute of Plant Breeding, College of Agriculture and Food Science, University of the Philippines Los Baños
Mar 6, 2020	2020 Outstanding Research Team Award

Team Member, Plant Pathology Program
Institute of Plant Breeding, College of Agriculture and Food Science,
University of the Philippines Los Baños

PROFESSIONAL QUALIFICATIONS

June 25-28, 2024	Oral Paper Presenter Pest-Pathogen Relationship: <i>Sitophilus zeamais</i> Carries Biological Control Agent Against Mycotoxigenic Fungi 56 th PMCP Anniversary and Annual Conference Malay, Aklan
June 25-28, 2024	Poster Presenter Efficacy of Bacterial Endophytes of Sugarcane against Ring Spot Disease (<i>Epicoccum sorghinum</i>) 56 th PMCP Anniversary and Annual Conference Malay, Aklan
Feb 21-23, 2024	Participant 1 st Plant Pathology National Congress Charles Fuller Baker Memorial Hall University of the Philippines Los Baños
Aug 28-Sept 1, 2023	Participant Practical bioinformatics skills for plant and animal whole genome sequencing data Center for Agricultural Biotechnology Kasetsart University Kamphaengsaen campus Thailand
Jul 24-26, 2023	Participant ISO 9001:2015 QMS Internal Audit and Root Cause Analysis Training TUV Rheinland and Central Philippines State University Kabankalan, Negros Occidental
Jun 13-15, 2023	Participant Video Translational Workshop Access Agriculture and University of St. La Salle Bacolod Negros Occidental
May 29- Jun 9, 2023	Participant RCEF Training of Trainers (TOT) on the Production of High-Quality Rice and Seeds, and Farm Mechanization PhilRice Negros, Murcia, Negros Occidental
May 19, 2023	Certificate of Merit (Presentation of Research Proposal) Characterization of Pests and Diseases of Mulberry using Machine Learning Technique in Negros Province R&D Symposium Across Disciplines: The Annual Agency In-House Review 2023 Central Philippines State University

Dec 8-9, 2022	Paper Presenter (International) <i>Bacillus</i> spp. controls growth of three mycotoxigenic fungi in corn seeds 13th IMT-GT UNINET Bioscience International Conference 2022 Songkhla, Thailand
Oct 26-27, 2022	Panel of Evaluators (Paper and Scientific Poster Presentations) Regional Research and Development Symposium Central Visayas Agriculture, Aquatic and Natural Resources Research and Development Consortium (CVAARRDEC) St. Mark Hotel, Brgy. Kamputhaw, Cebu City
Oct 13-14, 2022	Paper Presenter Mycoflora distribution in corn seeds and milled products of different varieties in the Philippines 2022 ISSAAS National Virtual Scientific Congress
Oct 3-7, 2022	Workshop Facilitator Basic Plant Disease Diagnosis Workshop A Capacity-building Workshop for Staff of the Mindoro State University Institute of Plant Breeding, College of Agriculture and Food Science, University of the Philippines Los Baños
Aug 18-19, 2022	Paper Presenter New Records of Fungi Associated with Plant Diseases in the Philippines 52 nd CSSP Scientific Conference Crop Science Society of the Philippines
Jul 14-15, 2022	Poster Presenter Isolation of <i>Hyphopichia burtonii</i> from corn weevil (<i>Sitophilus zeamais</i>) and its antagonistic activity against mycotoxigenic fungi 54 th PMCP Anniversary and Annual Conference
Jul 14-15, 2022	Poster Presenter Culture filtrate from <i>Bacillus</i> spp. controls growth of mycotoxigenic fungal pathogens in corn seeds 54th PMCP Anniversary and Annual Conference
Mar 15, 2022	Poster Presenter Intervention in Corn Seeds Using Physical and Non-physical Control Method against Mycotoxigenic Fungi NRCP Annual Scientific Conference and 89th General Membership Assembly
Jan 26-27, 2022	Poster Presenter Efficacy of <i>Bacillus</i> spp. isolated from corn seeds against three mycotoxigenic fungal pathogens 2nd IPB-JRO Scientific Conference Institute of Plant Breeding, College of Agriculture and Food Science, University of the Philippines Los Baños

Jul 6-7, 2021	Poster Presenter Occurrence, Frequency, and Characterization of <i>Aspergillus</i> Species in Different Corn Varieties 53rd PMCP Anniversary and Annual Conference
May 20, 2021	Technical Paper Presenter Characterization and Molecular Identity of Corn Smut Pathogen in the Philippines 2 nd Plant Pathology Laboratory – IPB Virtual Scientific Session University of the Philippines Los Baños
Apr 29-30, 2021	Poster Presenter Overview of Corn Grits Pathology and Detection of New Potentially Mycotoxigenic Fungal Strains from the Philippines 7 th UP REPSS Scientific Conference and 11 th General Assembly Meeting UP Society of Research, Extension, and Professional Staff, Inc.
Mar 10, 2021	Poster Presenter Identification of <i>Aspergillus tamarii</i> in corn seeds and milled products from the Philippines 2021 Annual Scientific Conference and 88 th General Membership Assembly National Research Council of the Philippines, Bicutan, Taguig City
Jan 13, 2021	Poster Presenter Identification of <i>Aspergillus tamarii</i> in corn seeds and milled products from the Philippines 1 st IPB-JRO Scientific Conference Institute of Plant Breeding, College of Agriculture and Food Science, University of the Philippines Los Baños
Nov 26 – 27, 2020	Poster Presenter Phenotypic Reaction and Gene Expression of Wheat-Durable Resistance Gene <i>Lr67</i> in Rice (<i>Oryza sativa</i> L.) Against Fungal Pathogens ASTHRDP Graduate Scholars Conference (Year 9) Department of Science and Technology Science Education Institute and Accelerated Science and Technology Human Resource Development Program-National Science Consortium
Jul 25, 2020	Technical Paper Presenter Frequency, identity, and mycotoxigenic potential of fungi from corn seeds during grits processing Plant Pathology Laboratory – IPB 1 st Virtual Scientific Session University of the Philippines Los Baños
Oct 18 – 20, 2019	Paper Presenter (International) Resistance Evaluation and Gene Expression of Wheat-Durable Resistance Gene <i>Lr67</i> in Rice (<i>Oryza Sativa</i> L.) against Fungal Pathogens ISSAAS International Congress and General Meeting 2019

Jul 2 – 5, 2019

Poster Presenter

The Durable Resistance Gene *Lr67* from Wheat Confers Partial Resistance against Multiple Fungal Pathogens in Rice
51st Anniversary and Annual Scientific Conference
Coron Westown Resort, Coron, Palawan

PUBLICATIONS

Seco, M. N. P., Beltran, A. K. M., & Balendres, M. A. O. (2024). First record of isolated from the storage pest and its bioactivity against mycotoxigenic fungi. *Hellenic Plant Protection Journal*, 17(2), 97-110.

Seco, M. N., Beltran, A. K., Guerrero, J. J., & Balendres, M. A. (2024). An overview of toxigenic fungi associated with corn seeds and milled corn products. *Transactions on Science and Technology* Vol. 11, No. 2, 74 – 83.

Seco, M. N., Beltran, A. K., & Balendres, M. A. (2024). Detection and identification of *Aspergillus aculeatinus* in corn seeds and milled products in Laguna, Philippines. *Plant Pathology & Quarantine* 14(1): 71–80.

Aumentado, H. D. R., **Seco, M. N.**, Corbita, V., Calabon, M. S., Bulasag, A., & Balendres, M. A. (2024). Plant pathogenic Paramyothecium species: distribution, biology, epidemiology and disease management. *European Journal of Plant Pathology*, 1-13.

Seco, M. N. P., & Balendres, M. A. O. (2023). Isolation, Morphology, and Molecular Characteristics of *Ustilago maydis* from the Philippines. *Manila Journal of Science*, 16(1), 24-29.

Mari Neila Seco, Victor Corbita, Mark Calabon, Angelbert Cortes, Shamdee Nahar-Cortes, Aira Waje, Kris Lord Santos, Livy Sarucam, Marc Lenard Merlin, Jonathan Guerrero, Melissa Montecalvo, Jaypee Estigoy, Airene Otanes, Princess Perez, Mark Angelo Balendres. *Sclerotinia*. Book Chapter. (in press)

Balendres MA, Calabon M, Cortes A, Cortaga C, Cruz MA, **Seco MS**, Corbita V, Fronda, Merlin ML, Montecalvo M, Paguntalan D, Mentrillo J, Guerrero JJ, Silvosa-Millado CS, Lagman MC, De Leon M, Jamago J (2024) Nigrospora. In *Compendium of Phytopathogenic Microbes in Agro-ecology* (Volume 1), Amaresan N (Editor). Springer Nature, Cham, Switzerland. in press

Guerrero JJ, Calabon M, **Seco MS**, Corbita V, Bulasag A, Concepcion R, Paguntalan D, Santos KL, Amalin D, Alvindia D, Silvosa-Millado CS, Alcasid C, Jamago J, Ignacio JT, Balendres MA (2024) Lasiodiplodia. In *Compendium of Phytopathogenic Microbes in Agro-ecology* (Volume 1), Amaresan N (Editor). Springer Nature, Cham, Switzerland. in press

PERSONAL SKILLS AND COMPETENCES

A. Language (s)

- English, Filipino, Cebuano, Hiligaynon – Good oral and written communication skills

B. Agricultural/Technical Skills

- DNA/RNA extraction, PCR analysis, and gene cloning
- Bioinformatics work such as genomic sequence editing and multi-gene sequence analysis
- Operation and maintenance of basic facilities and laboratory equipment
- Basic statistical analysis
- Knowledge/skills in research proposal preparation, report writing, and presentation
- Proficient in the use of grammar and plagiarism check software (Grammarly and Turnitin)

C. Social Skills

- Skills in supervising laboratory technicians and laborers in the activities related to the project
- Emcee experience of some activities
- Participation in social activities (Miss IPB Universe 2022)
- Group-leading skills
- Experience in organizing and coordinating event
- Good financial skills from experience in school organization

D. Computer Skills

- Proficient with computer office applications (MS Word, Excel, PowerPoint Presentation, and Publisher)
- Good in photoshop/editing photos, editing videos, making posters, brochures and leaflets
- Good in internet/research-related activities

E. Driving License

- License No. H12-15-000085

ADDITIONAL INFORMATION

A. Civil Service Commission (CSC) Eligibility

- Honor Graduate Eligibility – Presidential Decree No. 907
Certificate of Eligibility No. 100108160453
Issued on: April 11, 2016; Effectivity date: April 13, 2016

B. RA 1080 Board Eligibility

- Registered Agriculturist (Professional ID No. 0040175)
Professional Regulation Commission
Date of Exam: November 22-24, 2022
Registration date: March 13, 2023; Valid until: November 12, 2026

C. Membership in Honor, Civic and Related Association/Organization

- Member, Philippine Phytopathological Society (PPS), Inc.
- Member, Mycological Society of the Philippines (MSP), Inc.
- Member, The Philippine Society for Microbiology, Inc. (PSM)

- Member, Philippine Society of Biochemistry and Molecular Biology (PSBMB)
- Member, International Society for Southeast Asian Agricultural Sciences (ISSAAS)
- Alumna, Visayas State University Alumni Association, Inc.

REFERENCES

- **Mark Angelo O. Balendres, Ph.D.**
Professor
De La Salle University
mark.angelo.balendres@dlsu.edu.ph
- **Mary Jeanie T. Yanoria, Ph.D.**
Senior Associate Scientist
Rice Breeding Platform
International Rice Research Institute
Los Baños, Laguna 4031
(+63) 917 854 4654
m.yanoria@irri.org
- **Christian Joseph R. Cumagun, Ph.D.**
Institute of Weed Science, Entomology and Plant Pathology
University of the Philippines Los Baños (formerly)
(+63) 916 596 7596
christian_cumagun@yahoo.com
- **Lucia M. Borines, Ph.D.**
(Retired) Head and Professor VI
Plant Disease Diagnostic Laboratory
Department of Pest Management
Visayas State University (formerly)
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MARI NEILA P. SECO