

Cheryl O. Dalid, PhD

Strawberry Breeding and Genetics
University of Florida/IFAS Gulf Coast Research
and Education Center
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cheryldalid27@gmail.com

SUMMARY OF QUALIFICATIONS

- Experienced Plant Breeder who has worked with self-pollinated, cross-pollinated, and clonally propagated plants.
- 10+ years of experience in utilizing molecular markers in crop development.
- Skilled in managing, analyzing, and interpreting phenotypic and genetic data.
- Proficient in planning, organizing, managing, and executing multiple trials in plant breeding programs.
- Demonstrated innovativeness by developing and utilizing custom-made apps to improve phenotypic data collections, field selections for advancements, crossing activities, and seed management.

EDUCATION

PhD	Plant, Soil, and Environmental Sciences, concentration in Plant Breeding Minor in Statistics University of Tennessee Knoxville Dissertation: Genetic Diversity, Genetic Variation and Identification of Quantitative Trait Loci (QTL) Associated with Biomass Yield and Establishment-Related Traits in Lowland Switchgrass (<i>Panicum virgatum</i> L.)	2018
MS	Genetics Minor in Molecular Biology and Biotechnology University of the Philippines Los Baños Thesis: <i>Phosphorus uptake 1 (Pup1)</i> : Application of Gene Specific Markers for Marker-Assisted Breeding and Evolution Studies in (<i>Oryza sativa</i> L.).	2011
BS	Biology, Major in Genetics University of the Philippines Los Baños Thesis: Individual Seed Evaluation for High Methionine of Interspecific F ₂ Hybrid Populations of Mungbean (<i>Vigna radiata</i> (L.) Wilczek) and Blackgram (<i>Vigna mungo</i> (L.) Hepper).	2004

RESEARCH EXPERIENCE

University of Florida

2018-2026

UF/IFAS Gulf Coast Research and Education Center

Department of Horticultural Sciences

Research Assistant Scientist – Strawberry Breeding and Genetics

- Conducts genetics research and translates discoveries into technologies and methods for improving the strawberry breeding process.
- Contributes to discovery of genetic loci controlling important traits through methods involving QTL mapping and GWAS.
- Integrates digital phenotyping methods into the breeding program.
- Conducts field selections and recommends advancement of genotypes for testing and potential release.
- Recommends potential parents for hybridization by utilizing trait marker information, genomic prediction results, disease trial data, and field evaluations.
- Manages the Marker Assisted Seedling Selection activity in the Strawberry Breeding Program.
- Presents original research at scientific meetings and author and co-author peer-reviewed publications.
- Mentor students in collaboration with the director of the breeding program and to procure grant funding to support their research program.

University of Florida

2018-2026

UF/IFAS Gulf Coast Research and Education Center

Department of Horticultural Sciences

Strawberry Breeding and Genetics

Biological Scientist III/Assistant Plant Breeder

- Leads the strawberry phenomics project to estimate and study the genetics of above-ground vegetative dry biomass using high resolution images from ground-based imaging and from a UAV(Unmanned Aerial Vehicle) platform in strawberry.
- Conducts field selections and recommends advancement of genotypes for testing and potential release.
- Recommends potential parents for hybridization by utilizing trait marker information, genomic prediction results, disease trial data, and field evaluations.
- Manages the Marker Assisted Seedling Selection activity in the Strawberry Breeding Program.
- Designs and establish field experiments related to cultivar development including disease trials.
- Coordinates strawberry breeding operations in the fruiting field, nursery field, greenhouses, and laboratory.
- Oversees activities of technicians and hourly employees.
- Developed custom-made apps using AppSheet to improve traceability and generate high quality data on a timely manner.
- Curates high quality strawberry yield data, disease trial data, and genotypic data

used for presentations in scientific meetings and peer-reviewed publications.

- Prepares and analyzes data for selection advancement, cultivar release, and peer-reviewed publications.
- Presents original research at scientific meetings and author and co-author peer-reviewed publications.

University of Tennessee Knoxville

2018

Department of Plant Sciences

Soybean Breeding and Genetics

Research Aide

- Assisted in seed preparations and planting soybean experiments and yield trials.
- Performed hybridizations for cultivar development.

University of Tennessee Knoxville

2013-2017

Department of Plant Sciences

Bioenergy/Biomass Feedstock Breeding and Genetics

Graduate Research Assistant

- Evaluated the genetic diversity among lowland switchgrass based on microsatellite markers (SSR).
- Assessed the genetic variation and estimated the expected genetic gain in lowland switchgrass.
- Identified QTLs and molecular markers associated with establishment -related traits using a NAM (Nested Association Mapping) population.
- Wrote and presented data in scientific meetings and peer-reviewed publications.

International Rice Research Institute (IRRI)

2008-2013

Plant Breeding, Genetics, and Biotechnology Division,

Candidate Genes for Tolerance to Abiotic Stresses Group,

Molecular Breeding Laboratory

Researcher

- Developed new *Phosphorus uptake 1 (Pup1)* breeding populations using marker-assisted selection and field evaluations.
- Analyzed the phylogeny of the *Pup1* locus by PCR analyses of wild rice using gene specific markers.
- Managed field experiments and data collections as well as production of high-quality seeds of the breeding materials.
- Prepared and analyzed data for scientific meetings and peer-reviewed publications.

Plant Industrial Division, Fungi and Plants Co. Ltd

2008

Doan-myeon, Jeungpyeong-gun, Chungcheongbuk-do, South Korea

Researcher

- Molecular marker applications using Simple Sequence
- Repeats (SSR) in pepper breeding populations.

- Phenotypic data collection from greenhouse plants.

International Rice Research Institute (IRRI)

2005- 2007

Plant Breeding, Genetics, and Biotechnology Division,
Rainfed Lowland, Aerobic and Upland Rice Breeding Group,
Molecular Marker Applications Laboratory

Research Technician II

- Performed high-throughput molecular marker genotyping of rice breeding populations for drought tolerance.
- Facilitated data collections in the field and in the laboratory.
- Analyzed data for scientific meetings and peer-reviewed publications.

Bureau of Fisheries and Aquatic Resources (BFAR)

2004-2005

Fish Health Laboratory,

Quezon Ave., Quezon City, Philippines

Laboratory Analyst

- Polymerase chain reaction based early detection of White Spot Syndrome Virus (WSSV) in shrimps and Koi Herpes Virus (KHV) in Koi fishes.
- On-site disease surveillance for WSSV and KHV.

World Vegetable Center (AVRDC)

2003

Shanhua, Tainan, Taiwan

Undergraduate Intern

- Evaluated seeds through chemical analysis for high methionine content of interspecific F₂ hybrid populations of mungbean (*Vigna radiata* (L.) Wilczek) and blackgram (*Vigna mungo* (L.) Hepper).
- Prepared and analyzed data for thesis publication.

TEACHING EXPERIENCE

University of Tennessee Knoxville

Spring 2016

Department of Plant Sciences

*Graduate Teaching Assistant – Agroecology***University of Tennessee Knoxville**

Fall 2015

Department of Plant Sciences

*Graduate Teaching Assistant – Introduction to Plant Breeding***International Rice Research Institute (IRRI)**

24 Nov-

Training Center, College, Los Baños, Laguna, Philippines

05 Dec 2008

Resource Person – Marker Assisted Selection (MAS) in Rice:
Theory, Practice, and Application

PUBLICATIONS

Journal Publications

Dalid C., L.F. Osorio, N.A. Peres, A. Plotto, J. Bai, S. Lee, and V.M. Whitaker. 2025. Florida Medallion™ 'FL 16.30-128' Strawberry. *HortScience*. 60(7): 1032-1036. <https://doi.org/10.21273/HORTSCI18585-25>.

Dalid C., C. Zheng, L.F. Osorio, S. Verma, A. Abd-Elrahman, X. Wang, and V.M. Whitaker. 2025. Genetic Analysis of Predicted Vegetative Biomass and Biomass-Related Traits from Digital Phenotyping of Strawberry. *The Plant Genome*, 18(2): e70018. <https://doi.org/10.1002/tpg2.70018>.

Jang, Y. J., Oh, Y., S. Verma, M.E. Porter, **C. Dalid**, C.M. Yoo, Z. Fan, C.W. Willborn, K. Han, D. Kim, V.M. Whitaker, and S. Lee. 2024. Updates on strawberry DNA testing and marker-assisted breeding at the University of Florida. *International Journal of Fruit Science*, 24(1): 219-228. <https://doi.org/10.1080/15538362.2024.2365683>.

Zheng, C., A. Abd-Elrahman, V.M. Whitaker, X. Wang, **C. Dalid**, K. Shen. 2024. Strawberry canopy structural parameters estimation and growth analysis from UAV multispectral imagery using a geospatial tool. *Computer and Electronics in Agriculture*. 226:109440.

Whitaker, V. M., **C. Dalid**, L.F. Osorio, N.A. Peres, S. Verma, S. Lee, and A. Plotto. 2023. Florida Pearl® 'FL 16.78-109' Pineberry, *HortScience*, 58(1): 143-146.

Yoo, C.-M., **C. Dalid**, C. Moyer, V. Whitaker, and S. Lee. 2022. Improving Strawberry Varieties by Somaclonal Variation: HS1448, 10/2022. *EDIS*. 2022(5). <https://doi.org/10.32473/edis-HS1448-2022>.

Zheng, C., A. Abd-Elrahman, V.M. Whitaker, and **C. Dalid**. 2022. Deep Learning for Strawberry Canopy Delineation and Biomass Prediction from High-Resolution Images. *Plant Phenomics*. <https://doi.org/10.34133/2022/9850486>.

Zheng, C., A. Abd-Elrahman, V.M. Whitaker, and **C. Dalid**. 2022. Prediction of Strawberry Dry Biomass from UAV Multispectral Imagery Using Multiple Machine Learning Methods. *Remote Sensing*. <https://doi.org/10.3390/rs14184511>

Nayak, S., H.S. Bhandari, C. Sams, V.R. Sykes, H. Hilafu, **C.O. Dalid**, S. Senseman, and V.R. Pantalone. 2020. Genetic Variation for Biomass Yield and Predicted Genetic Gain in Lowland Switchgrass "Kanlow". *Agronomy*. <https://doi.org/10.3390/agronomy10121845>.

Abd-Elrahman A., Z. Guan, **C. Dalid**, V. Whitaker, K. Britt, B. Wilkinson, A. Gonzalez. 2020. Automated Canopy Delineation and Size Metrics Extraction for Strawberry Dry Weight Modeling Using Raster Analysis of High-Resolution Imagery. *Remote Sensing*. <https://doi.org/10.3390/rs12213632>.

Dalid, C.O., A.M. Saxton, F.L. Allen, V.R. Pantalone, S. Nayak, and H.S. Bhandari. 2018. Genetic Variation and Expected Per Cycle Biomass Yield Gain in Lowland Switchgrass (*Panicum virgatum* L.). *Crop Science*. doi:10.2135/cropsci2018.01.0026.

Bhandari, H.S., S. Nayak, **C.O. Dalid** and V.R. Sykes. 2017. Biomass Yield Heterosis in Lowland Switchgrass. *Crop Science*. 57: 2015-2023. doi:10.2135/cropsci2017.02.0080.

Pariasca-Tanaka J., J.H. Chin, K.N. Dramé, **C. Dalid**, S. Heuer, and M. Wissuwa. 2014. A novel allele of the P-starvation tolerance gene OsPSTOL1 from African rice (*Oryza glaberrima* Steud) and its distribution in the genus *Oryza*. *Theoretical and Applied Genetics*. 127:1387-98.

Gamuyao, R., J.H. Chin, J. Pariasca-Tanaka, P. Pesaresi, S. Catausan, **C. Dalid**, I. Slamet-Loedin, E.M. Tecson-Mendoza, M. Wissuwa, and S. Heuer. 2012. The protein kinase OsPSTOL1 from traditional rice confers tolerance of phosphorus deficiency. *Nature*. 488(7412):535-9.

Chin, J.H., R. Gamuyao, **C. Dalid**, M. Bustamam, J. Prasetyono, S. Moeljopawiro, M. Wissuwa, and S. Heuer. 2011. Developing Rice with High Yield under Phosphorus deficiency: *Pup1* sequence to application. *Plant Physiology*. 156: 1202-16.

Venuprasad, R., **C. Dalid**, M. Del Valle, D. Zhao, M. Espiritu, M.T. Sta Cruz, M. Amante, A. Kumar, and G.N. Atlin. 2009. Identification and characterization of large-effect quantitative trait loci for grain yield under lowland drought stress in rice using bulk-segregant analysis. *Theoretical and Applied Genetics*. 120:177-190.

Venuprasad, R., M.E. Bool, **C. Dalid**, J. Bernier, A. Kumar, and G.N. Atlin. 2009. Genetic loci responding to two cycles of divergent selection for grain yield under drought stress in a rice breeding population. *Euphytica*. 167:261-269.

Conference Presentations (Oral)

Dalid C., L.F. Osorio, and V.M. Whitaker. 2023. High-Throughput Field Phenotyping and its Application in the UF Strawberry Breeding Program. *North American Strawberry Symposium (NASS)*. 07-10 March 2023. San Luis Obispo, California.

Dalid C., L.F. Osorio, S. Verma, C. Zheng, A. Abd-Elrahman, Z. Fan, X. Wang, and V.M. Whitaker. 2022. Genetic Analysis of Predicted Vegetative Biomass Derived from High-Resolution Imagery in Cultivated Strawberry. *American Society of Horticultural Sciences Annual Conference (ASHS)*. 30 July-03 August 2022. Chicago, Illinois.

Dalid, C., J.H. Chin, J. Prasetyono, M. Bustamam, S. Moeljopawiro, R.L. Gamuyao, S. Catausan, M. Wissuwa, and S. Heuer. 2012. Molecular breeding applications of the major QTL for tolerance to phosphorus deficiency, *Pup1*. 42nd Scientific Conference of the Crop Science Societies of the Philippines (CSSP). 16-21 April 2012. Puerto Princesa City, Palawan, Philippines.

Conference Presentations (Poster)

Dalid C., L.F. Osorio, S. Verma, C. Zheng, A. Abd-Elrahman, X. Wang, and V.M. Whitaker. 2024. Integrating Field-Based High Throughput Phenotyping and Genomic Information in Strawberry Cultivar Development. *National Association of Plant Breeders Annual Meeting (NAPB)*. 21-25 July 2024. St. Louis, Missouri.

Sharma S., Y. Oh, J.D. Zurn, S. Chandra, Y.T. Lu, C. Yoo, S. Verma, N. Salinas, Z. Fan, **C. Dalid**, N. Bassil, V.M. Whitaker, S. Lee. 2019. Application of DNA Test for Disease Resistance and Fruit Quality in Cultivated Strawberry. *American Society of Horticultural Sciences Annual Conference (ASHS)*. 21-25 July 2019. Las Vegas, Nevada.

Dalid, C., S. Nayak, F. Chen, V. Pantalone, A. Saxton, F. Allen, and H. Bhandari. 2016. Genetic variation and estimation of ethanol yield of Alamo half-sib families. *ASA, CSSA, and SSSA International Annual Meeting*. 6-9 November 2016. Phoenix, Arizona.

Dalid, C., K. Chekhovskiy, S. Nayak, M. Saha, and H. Bhandari. 2016. Diversity among lowland switchgrass (*Panicum virgatum* L.) based on microsatellite markers (SSR). 2016. *National Association of Plant Breeders Annual Meeting*. 15-18 August 2016. Raleigh, North Carolina.

Dalid, C., K. Chekhovskiy, S. Nayak, M. Saha, and H. Bhandari. 2015. Genetic diversity analysis of lowland switchgrass (*Panicum virgatum* L.) using SSR (Simple Sequence Repeats) markers. *Switchgrass III: Prairie and Native Grass International Conference*. 30 September- 2 October 2015. Knoxville, Tennessee.

Dalid, C., J. Hentchel, W. Carmack, A. Aust, F. Allen, and H. Bhandari. 2014. Phenotypic Selection Improves Biomass Yield of an Alamo Population of Switchgrass. *ASA, CSSA, and SSSA International Annual Meeting*. 2-5 November 2014. Long Beach, California.

Dalid, C., R.L. Gamuyao, N. Hidayatun, S. Catausan, J. Prasetyono, S. Moeljopawiro, J. Pariasca-Tanaka, M. Wissuwa, J.H. Chin, and S. Heuer. 2013. Breeding for Phosphorus Deficiency Tolerance. *Plant and Animal Genome Asia Conference*. 17-19 March 2013. Singapore, Singapore.

Gamuyao, R.L., J.H. Chin, J. Pariasca-Tanaka, P. Pesaresi, S. Catausan, **C. Dalid**, M. Wissuwa, and S. Heuer. 2012. The Rice Protein Kinase *OsPSTOL* is an Enhancer of Root Growth. *10th International Symposium of Rice Functional Genomics*. 26-29 November 2012. Chiang Mai, Thailand.

Dalid, C., R.L. Gamuyao, J. Prasetyono, S. Heuer, and J.H. Chin. Development of breeding lines with a major QTL for phosphorus deficiency tolerance (*Pup1*) through marker-assisted backcrossing in rice. *Annual Conference of the Korean Society for Plant Biotechnology*. 7-8 June 2012. Chungbuk University, Cheongju, South Korea.

Dalid, C., R.L. Gamuyao, M. Bustamam, J. Prasetyono, S. Moeljopawiro, J.H. Chin, and S. Heuer. 2012. Development of *indica*-*Pup1* introgression lines through marker-assisted backcrossing. *12th Scientific Congress of the Society for the Advancement of Breeding Research in Asia and Oceania (SABRAO)*. 13-16 January 2012. Chiang Mai, Thailand.

Chin, J.H., R.L. Gamuyao, **C. Dalid**, M. Bustamam, J. Prasetyono, S. Moeljopawiro, M. Wissuwa, and S. Heuer. 2011. *Pup1* sequence to molecular marker application: High yielding rice under low phosphorus. *9th International Symposium of Rice Functional Genomics*. 7-9 November 2011. Academia Sinica, Taipei, Taiwan.

Dalid, C., J.H. Chin, R.L. Gamuyao, M. Wissuwa, and S. Heuer. 2011. *Phosphate uptake 1 (Pup1)*: Applications of gene-specific markers for breeding and evolution studies. *21th Scientific Conference of the Federation of Crop Science Societies of the Philippines (FCSSP)*. 9-14 May 2011. Legazpi City, Philippines.

Dalid C., J.H. Chin, J.L. Trinidad, R.L. Gamuyao, S. Haefele, M. Wissuwa, M. Bustamam, J. Prasetyono, and S. Heuer. 2010. Molecular breeding application of gene-specific markers for the major QTL *Phosphorus uptake 1 (Pup1)*. *40th Scientific Conference of the Crop Science Societies of the Philippines (CSSP)*. 15-20 March 2010. Davao City, Philippines.

Chin, J.H., **C. Dalid**, R.L. Gamuyao, S. Amarante, J. Siopongco, J. Trinidad, M. Wissuwa, S. Haefele, and S. Heuer. 2009. Development and application of gene-based markers for the major QTL *Phosphorus uptake 1 (Pup1)*. *6th International Rice Genetics Symposium*. 16-19 November 2009. Manila, Philippines.

Dalid, C., J.H. Chin, J.L. Trinidad, R.L. Gamuyao, S. Haefele, A.M. Ismail, M. Wissuwa and S. Heuer. 2009. Application of the major QTL *Phosphate uptake 1 (Pup1)*. *20th Scientific Conference of the Federation of Crop Science Societies of the Philippines (FSCCP)*. 18-23 May 2009. Dumaguete City, Philippines.

PATENTS AND CERTIFICATIONS

Patents

Whitaker, V.M., **C. Dalid**, L.F. Osorio. 2025. Strawberry plant named 'FL 19.66-220'. U.S. Patent Application Number 18/896,723 filed September 25, 2024. Patent pending.

Whitaker, V.M., **C. Dalid**, L.F. Osorio. 2025. Strawberry variety 'FL 19.66-220'. U.S. Patent Application Number 18/896,542 filed September 25, 2024. Patent pending.

Certifications

FAA Part 107 Remote Pilot Certificate, Federal Aviation Administration, June 2025

PEER REVIEW ACTIVITIES

2025-present	<i>Horticulture Research</i>
2025-present	<i>Plant Phenomics</i>

2025-present	<i>The Plant Genome</i>
2025-present	<i>The Plant Journal</i>
2024-present	<i>HortScience</i>
2023-present	<i>Plant Physiology</i>
2022-present	<i>Frontiers in Plant Science</i>
2021-present	<i>Agronomy</i>

RECOGNITION

Awards, Honors

- 2023 UF/IFAS GCREC Honors and Awards Winner – PostDoc Associate Category
- 2016 Awardee, UTIA AgResearch Travel Grant
- 2014 Awardee, Switchgrass III: Prairie and Native Grass International Conference Presentation Fellowship
- 2011 Co-awardee, IRRI Outstanding Scientific Achievement Award
- 2003 Undergraduate Summer Internship, The World Vegetable Center (formerly known as The Asian Vegetable Research and Development Center), Taiwan

Invited Presentations

- 2025 ASHS Vegetable Breeding Interest Group Workshop- AI in Horticultural Crop Breeding
- 2023 Department Seminar, Institute of Biological Sciences, UPLB

SOFTWARE PROFICIENCY

SAS
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PROFESSIONAL AFFILIATIONS

American Society for Horticultural Science
National Association of Plant Breeders
Crop Science Society of America
The Honor Society of Phi Kappa Phi
Gamma Sigma Delta Honor Society of Agriculture
IRRI Filipino Scientists Association
Crop Science Society of the Philippines