Manuel Marcaida III

Crop Yield Data Analyst
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EDUCATION

MSc Environmental Environmental and Forest Sciences
University of Washington, Seattle, WA USA
Class of 2020

BS Agricultural Engineering
University of the Philippines Los Baños, Laguna, Philippines
Class of 2005

PROFESSIONAL EXPERIENCE

Graduate Research Assistant
University of Washington, School of Environmental and Forest Sciences, Seattle WA
September 2018 – September 2020

Conducted spatio-temporal and modeling research that generated information on how hydrology, climate, and agronomic practices impact rice production in Cambodia's Tonle Sap floodplains

Assistant Scientist
International Rice Research Institute, Laguna, Philippines
May 2010 - June 2018

Performed crop model simulations and analyses using climate, soil, and agronomic data from multi-geographical environments whose results were used to improve model performance, leading to its new version release

University Research Associate II
University of the Philippines Los Baños, Postharvest Horticulture Training and Research Center, Laguna, Philippines
March 2006 – September 2009

Traced and evaluated the Philippine Mango's local and export (Hong Kong) supply chain and co-formulated farm management practices and packaging interventions to reduce postharvest loss

PUBLICATIONS

Marcaida, M.III., 2020. Rice Production in Tonle Sap Floodplains in Response to Anthropogenic Changes in Hydrology, Climate, and Agronomic Practices (Master's thesis).

Hasegawa, T., Li, T., Yin, X., Zhu, Y., Boote, K., Baker, J., Bregaglio, S., Buis, S., Confalonieri, R., Fugice, J. and Fumoto, T., Gaydon, D., Kumar, S.N., Lafarge, T., Marcaida, M. III., Masutomi, Y., Nakagawa, H., Oriol, F.,

Ruget, F., Singh, U., Tang, L., Tao, F., Fugice, J., Wakatsuki, H., Wallach, D., Wang, Y., Wilson T., 2017. Causes of variation among rice models in yield response to CO2 examined with Free-Air CO2 Enrichment and growth chamber experiments. Scientific Reports, 7(1), 14858.

Li, T., Angeles, O., Marcaida, M.III., Manalo, E., Manalili, M., Radanielson, A., Mohanty, S., 2017. From ORYZA2000 to ORYZA (v3): An improved simulation model for rice in drought and nitrogen-deficient environments. Agricultural and Forest Meteorology. 237: 246-256.

Confalonieri, R., Bregaglio, S., Adam, M., Ruget, F., Li, T., Hasegawa, T., Yin, X., Zhu, Y., Boote, K., Buis, S. and Fumoto, T., Gaydon, D., Lafarge, T., Marcaida, M. III., Nakagawa, H., Ruane, A.C., Singh, B., Singh, U., Tang, L., Tao, F., Fugice, J., Yoshida, H., Zhang, Z., Wilson, L., Bouman., 2016. A taxonomy-based approach to shed light on the babel of mathematical models for rice simulation. Environmental Modelling & Software, 85: 332-341.

Li, T., Ali, J., Marcaida III, M., Angeles, O., Franje, N.J., Revilleza, J.E., Manalo, E., Redoña, E., Xu, J. and Li, Z., 2016. Combining Limited Multiple Environment Trials Data with Crop Modeling to Identify Widely Adaptable Rice Varieties. PloS one, 11(10): e0164456.

Makowski, D, Asseng, S, Ewert, F, Bassu, S, Durand, JL, Li, T, Martre, P, Adam, M, Aggarwal, PK, Angulo, C, Baron, C, Basso, B, Bertuzzi, P, Biernath, C, Boogaard, H, Boote, KJ, Bouman, B, Bregaglio, S, Brisson, N, Buis, S,Cammarano, D, Challinor, AJ, Confalonieri, R, Conijn, JG, Corbeels, M, Deryng, D, De Sanctis, G, Doltra, J, Fumoto, T, Gaydon, D, Gayler, S, Goldberg, R, Grant, RF, Grassini, P, Hatfield, JL, Hasegawa, T, Heng, L, Hoek, S,Hooker, J, Hunt, LA, Ingwersen, J, Izaurralde, RC, Jongschaap, REE, Jones, JW, Kermanian, RA, Kersebaum, KC, Kim, S-H, Lizaso, J, Marcaida III, M, Müller, C, Nakagawa, H, Naresh Kuma, S, Nendel, C, O'Leary, GJ, Olesen, JE, Oriol, P, Osborne, TM, Palosuo, T, Pravia, MV, Priesack, E, Ripoche, D, Rosenweig, C, Ruane, AC, Ruget, F, Sau, F, Semenov, MA, Shcherbak, I, Singh, B, Singh, U, Soo, HK, Steduto, P, Stöckle, C, Stratonovitch, P,Streck, T, Supit, I, Tang, L, Tao, F, Teixeira, EI, Thorburn, P, Timlin, D, Travasso, M, Rötter, RP, Waha, K, Wallach, D, White, JW, Wilkens, P, Williams, JR, Wolf, J, Yin, X, Yoshida, H, Zhang, Z and Zhu, Y., 2015. A statistical analysis of three ensembles of crop model responses to temperature and CO2 concentration. Agricultural and Forest Meteorology, 214: 483 - 493.

Li, T., Angeles, O., Radanielson, A., Marcaida, M. III., & Manalo, E. , 2015. Drought stress impacts of climate change on rainfed rice in South Asia. Climatic Change, 1-12.

Li, T., Hasegawa, T., Yin, X., Zhu, Y., Boote, K., Adam, M., Bregaglio, S., Buis, S., Confalonieri, R., Fumoto, T., Gaydon, D., Marcaida, M. III, Nakagawa, H., Oriol, P., Ruane, A.C., Ruget, F., Singh, B., Singh, U., Tang, L., Tao, F., Wilkens, P., Yoshida, H., Zhang, Z., Bouman, B., 2015. Uncertainties in predicting rice yield by current crop models under a wide range of climatic conditions. Global Change Biol, 21(3): 1328–1341.

Confalonieri, R., Bregaglio, S., Adam, M., Ruget, F., Li, T., Hasegawa, T., Yin, X., Zhu, Y., Boote, K., Buis, S., Fumoto, T., Gaydon D., Marcaida III M., Nakagawa H., Oriol P., Ruane A.C., Singh B., Singh U., Tang L., Tao F., Fugice J., Yoshida H., Zhang Z., Wilson L.T., Baker J., Yang Y., Masutomi Y., Wallach D., Bouman B., 2015. A taxonomy-based approach to shed light on the babel of mathematical analogies for rice simulation. Submitted to Environmental Modelling & Software.

Marcaida, M. III., Li, T., Angeles, O., Evangelista G.K., Fontanilla, M.A., Xu, J., Gao, Y., Li, Z., Ali, J., 2014. Biomass accumulation and partitioning of newly developed Green Super Rice (GSR) cultivars under drought stress during the reproductive stage. Field Crops Res., 162: 30-38.

Li, T., Raman A.K., Marcaida, M. III., Kumar, A., Angeles O., Radanielson, A.M., 2013. Simulation of genotype performances across a larger number of environments for rice breeding using ORYZA2000. Field Crops Res., 149: 312-321.

Li T., Angeles O., Marcaida, M. III., Manalo, E., 2012. "The Modeling Study Using ORYZA2000." Practical Manual on Crop Simulation Modeling. Vol I. Ed. T. Barik, S.N. Jena, D.K. Bastia, B. Behera. Bhubaneswar: Department of Agronomy, College of Agriculture, Orissa University of Agriculture and Technology, 124-181. Print.

CONFERENCE PRESENTATIONS

Marcaida, M. III, Farhat, Y.A., Hossain, F., Neumann, R.B. and Kim, S.H., 2020, December. Assessing the Impacts of Changing Hydrology, Climate, and Agronomic Practices to Dry Season Rice Production in the Tonle Sap Floodplains. In AGU Fall Meeting 2020. AGU.

Marcaida III, M., Farhat, Y., Hossain, F., Neumann, R.B. and Kim, S.H., 2019, December. Where's the Paddy Now? Examining the Effect of Dams in Dry Season Rice Production in Tonle Sap Lake. In AGU Fall Meeting Abstracts (Vol. 2019, pp. GC41E-1298).

Marcaida M. III, Setiyono T., Maunahan A., Romuga G., Paguirigan N., Quicho E., Radanielson A., 2018. Scaling up climate change mitigation strategy from farm to landscape level using Unmanned Aerial Vehicle (UAV) and remote sensing technologies. International Rice Research Conference. October 2018. Singapore.

Marcaida M. III, Li T., Angeles, O., Corcuera, F., Marfori, C., Revilleza, J.E., Ali, J., 2014. Yield stability of Green Super Rice in water- and NPK-limited environments. International Rice Congress 2014. October 2014. Bangkok, Thailand.

Marcaida M. III, Li T., Angeles, O., Manalo, E., 2012. Evaluation of ORYZA2000 under nitrogen-limited conditions: updates and improvements. IRRI Young Scientists Conference. November 2012. Los Banos, Laguna.

RELATED WEBLINKS

Google Scholar: https://scholar.google.com/citations?user=Dy6Ccc4AAAAJ&hl=en&oi=ao

ResearchGate: https://www.researchgate.net/profile/Manuel-Marcaida

News Article: https://environment.uw.edu/news/2019/06/fueled-by-floods/

Spotify: https://open.spotify.com/episode/4MK983fYuqZjxqaKAEAv1r