

Margaret W. Gitau Professor, Agricultural & Biological Engineering PhD 2003, Pennsylvania State University MS 1996, University Nairobi BS 1992, University of Nairobi Teaches ABE 52700, ABE 529, ABE 484/ASM494, ABE 486/ASM 495, ABE 425, ABE 591

Recent Papers

VM Garibay, MW Gitau, V Kongo, J Kisekka, D Moriasi. 2022. Comparative evaluation of water resource data policy inventories towards the improvement of East African climate and water data infrastructure. Water Resources Management 36(11), 4019-4038.

C Torres, MW Gitau, D Paredes-Cuervo, B Engel. 2022. Evaluation of sampling frequency impact on the accuracy of water quality status as determined considering different water quality monitoring objectives. Environmental Monitoring and Assessment 194(7), 1-23.

P Welikhe, SM Brouder, JJ Volenec, M Gitau, RF Turco. 2022. Dynamics of dissolved reactive phosphorus loss from phosphorus source and sink soils in tile-drained systems. Journal of Soil and Water Conservation 77(1), 1-14.

VM Garibay, MW Gitau, N Kiggundu, D Moriasi, F Mishili. 2021. Evaluation of reanalysis precipitation data and potential bias correction methods for use in data-scarce areas. Water Resources Management 35(5), 1587-1602 7.

P Welikhe, SM Brouder, JJ Volenec, M Gitau, RF Turco. 2021. Using artificial neural networks to improve phosphorus indices. Journal of Soil and Water Conservation 76(6), 513-526.

MA Aboelnour, BA Engel, MD Frisbee, MW Gitau, DC Flanagan. 2021. Impacts of watershed physical properties and land use on baseflow at regional scales. Journal of Hydrology: Regional Studies 35, 100810.

VZ Schull, S Mehan, MW Gitau, DR Johnson, S Singh, JP Sesmero, DC Flanagan. 2021. Construction of critical periods for water resources management and their application in the FEW nexus. Water 13(5), 718. AN Rohith, MW Gitau, I Chaubey, KP Sudheer. 2021. A multistate first-order Markov model for modeling time distribution of extreme rainfall events. Stochastic Environmental Research and Risk Assessment 35(6), 1205-1221.

M Gitau, S Asem-Hiablie, K Ileleji, A Srivastava. 2021. The Alliance for Modernizing African Agrifood Systems: A business case for investment in agricultural technologies in Africa. *Resource* 28(6), 4-10.

C Torres, M Gitau, J Lara-Borrero, D Paredes-Cuervo. 2020. Framework for water management in the Food-Energy-Water (FEW) nexus in mixed land-use watersheds in Colombia. *Sustainability* 12(24), 10332.

M Aboelnour, MW Gitau, and BA Engel. 2020. A comparison of streamflow and baseflow responses to land-use change and the variation in climate parameters using SWAT. Water, 12(1), 191.

P Welikhe, SM Brouder, JJ Volenec, M Gitau, RF Turco. 2020. Development of phosphorus sorption capacity-based environmental indices for tiledrained systems. Journal of Environmental Quality 49(2), 378-391.

VZ Schull, B Daher, MW Gitau, S Mehan, DC Flanagan. 2020. Analyzing FEW nexus modeling tools for water resources decision-making and management applications. Food and Bioproducts Processing 119, 108-124.

M Aboelnour, MW Gitau, BA Engel. 2019. Hydrologic response in an urban watershed as affected by climate and land-use change. Water, 11(8), 1603.

S Mehan, R Aggarwal, MW Gitau, DC Flanagan, CW Wallace, JR Frankenberger. 2019. Assessment of hydrology and nutrient losses in a changing climate in a subsurface-drained watershed. Science of the Total Environment, 688, 1236-1251.