

UC ANR Water Webinar



Sustainability of Irrigated Agriculture in the Central Valley of California

By: Dr. Isaya Kisekka, Associate Professor, Agricultural Water Management, University of California Davis

Day/Time: Friday 3/19, 3 - 4 PM

Join Zoom Meeting: <https://ucmerced.zoom.us/j/93722796133?pwd=a2FsKzBTUGVtOEovSTNVanRSNjZMdz09>

Meeting ID: 937 2279 6133; Passcode: 92837

Speaker Bio: Dr. Kisekka is an associate professor of Agricultural Water Management and Irrigation Engineering at the University of California, Davis. His core areas of specialization include water management, irrigation, and agrohydrology. He studies movement of water through the soil to groundwater, and through plants to the atmosphere to optimize water use in agriculture for enhanced crop production, economic and environmental outcomes. He is an associate editor of three journals including the ASCE (American Society of Civil Engineers) Journal of Irrigation and Drainage Engineering, Transactions of ASABE (American Society of Agricultural and Biological Engineers) and Irrigation Science. He is the 2020 recipient of the Irrigation Association Excellence in Education Award. Dr. Kisekka received his PhD from the University of Florida.

Abstract: The Central Valley of California is one of the most productive agricultural regions in the world due to its fertile soils, Mediterranean climate and water distribution infrastructure (Central Valley Project and State Water Project). However, long term sustainability of irrigated agriculture in the central valley is threatened by a number of factors including groundwater overdraft, nitrate contamination of groundwater, soil salinization as well as climate change. A number of policies (e.g., Sustainable Groundwater Management Act [SGMA], Irrigated Lands Regulatory Program [ILRP], and the Salt and Nitrate Program [SNP]) have been enacted to mitigate the above problems and ensure conservation of natural resources, and economic prosperity of the region. However, for growers to be compliant with the regulations while remaining profitable requires adoption of advanced management practices and technologies e.g., smart irrigation systems, soil-plant-atmosphere monitoring, artificial intelligence systems, and remote sensing. Findings from case studies applying these technologies in various crops grown in the central valley will be presented. Overall, sustainability of irrigated agriculture in the Central Valley of California will depend on building partnerships between growers, coalitions, regulators and other stakeholders including environmental justice groups.

Host: Safeeq Khan & Ellen Bruno, CE Specialists UC ANR