Research and Extension Efforts to Enhance Agricultural Water Management for Specialty Crops in the San Joaquin Valley

By: Dr. Daniele Zaccaria, Associate Professor in Agricultural Water Management for Cooperative Extension
University of California, Davis
Day/Time: Friday 2/18, 3 - 4 PM

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Speaker Bio: Dr. Daniele Zaccaria is Associate Professor and Agricultural Water Management Specialist in Cooperative Extension at the Department of Land, Air and Water Resources of University of California, Davis. Dr. Zaccaria completed his Ph.D. in Civil and Environmental Engineering – Irrigation Engineering Division at Utah State University (USA) in 2011, and his Masters of Science in Land and Water Resources Management at the International Center for Advanced Mediterranean Agronomic Studies – Mediterranean Agronomic Institute of Bari, Italy (CIHEAM-MAI Bari) in 1998. Before joining the UC Davis faculty in 2013, he served as Scientific Officer at the International Center for Advanced Mediterranean Agronomic Studies (CIHEAM-MAI Bari) since 1998. During that period, he has been actively involved in applied-research and in the formulation and execution of international cooperation projects in several Mediterranean, Middle-Eastern, North-African, and Central-Asian countries with focus on water resources management and irrigation.

Abstract: In the increasingly water-limited context of the San Joaquin Valley, information on consumptive water use of specialty crops for different site-specific growing conditions is scarce but much needed for climate-adaptive irrigation management. In this perspective, growers seek more resource-efficient crop production practices, as future water supplies become increasingly variable, limited and costly. The prospects of droughts occurring with higher frequency and severity in the near future, and the existing and upcoming environmental regulations (SGMA, IRLP, State Bill 32, etc.) call for precision irrigation practices based on more accurate information on crop evapotranspiration and soil-plant water status to pursue profitable and environmentally-sustainable specialty crop production. In this talk Dr. Zaccaria will provide an overview of research and extension efforts conducted in the last years to update water-related information and make it available to specialty crop growers for efficient irrigation management, and will share findings from applied-research studies. Finally, he will describe the results from some recent analyses of weather data to enhance agricultural water demand estimation and enable prospective irrigation scheduling.

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