

### Stakeholder recognition

- Agricultural Research Institute
- DuPont Crop Protection
- California Cotton Alliance
- California Cotton Ginners and Growers Association
- Graduate Net Initiative Research Fellowship
- Program for Education and Research in Biotechnology, California State University
- Faculty Sponsored Student Research Awards (FSSRA), and the Fresno Metropolitan Flood Control District
- Jordan College of Agricultural Sciences and Technology
- Lyles College of Engineering
- College of Science and Math for providing easels and backing



Anonymous constructive feedback about a poster.

Self-paced trivia game- do it with a coworker!



Ideas for the next event.

Self-paced sensory activity



## Jordan Agricultural Research Center

Welcome to JARC's open house research display! This event represents an opportunity for the JARC community to come together, show/see what research has occurred, and figure out how we can take the next step of inviting donors and other stakeholders in the future.

Browse the posters on display as a way to connect with fellow researchers, and feel free to engage the activities on the back page of this pamphlet.

**Development of a DNA extraction method from epidemiologically meaningful amounts of soil for quantification of nematodes using quantitative PCR**

Mala To, Andreas Westphal, Jacob A. Wenger, and Margaret L. Ellis (Plant Science)

**Genotypic and phenotypic evaluation of *Fusarium oxysporum* f. sp. *vasinfectum* race 4 isolates collected from cotton in California**

Margaret Lee Ellis, Josue Dia1, Robert B. Hutmacher, Mauricio Ulloa (Plant Science)

**Bud Dormancy Breaking Agents in Pistachios**

Gurreet Brar, Masood Khezri, Faranak Hadevi, Ranvir Tung, Sharon Benes (Plant Science)

**Effects of Irrigation Water Salinity on Pistachios**

Daniel Syverson, Masood Khezri, Faranak Hadevi, Gurreet Brar (Plant Science)

**Young Citrus Development Using Smart Lighting Techniques and Elevated Carbon Dioxide Environment.**

Gabrielle Celaya, Hardeep Singh, Masood Khezri, Sharon Benes, John Bushoven, Gurreet Brar (Plant Science)

**Investigating regulatory mechanisms associated with metabolic switches during cancer using the yeast model *S. cerevisiae***

Andrew Gilbert, Sean Carpenter, Hallie Willie, Carlos Gonzalez, Laurent Dejean (Chemistry)

**Laboratory evaluation of tissue and soil quality following cultivation of drought-tolerant sorghum with varying water supplies and nitrogen regimes**

Florence Cassel, Ramandeep Brar, Janet Robles, Dave Goorahoo (Plant Science)

**Compact Instrumentation for Accurate Detection and Measurement of Glucose Concentration using Photoacoustic Spectroscopy and Machine Learning**

Faheem Shaikh, Soumyasanta Laha (Electrical Engineering)

**Tracking Lipid Accumulation and Quantitation of Microalgae Grown in Surface Recharging Basin Water**

Angela Soghomonian, Mark Soghomonian, Kalyani Maitra (Chemistry)

**Geospatial and Statistical Analyses of Groundwater Contaminants in the San Joaquin River Valley During Drought and Non-Drought Periods**

Aric Mine (Earth and Environmental Sciences)

**Microbial Community Response to Changing Groundwater Chemistry in the San Joaquin Valley**

Aric Mine (Earth and Environmental Sciences)

**Mobilization of Trace Elements from Sediments into Groundwater in California's Central Valley**

Aric Mine (Earth and Environmental Sciences)

**Characterization of Wine Aroma Pleasantness Using Facial Muscular Activity**

Miguel Pedroza (Enology)

**EM38 Soil Surveys and the collection of site-specific data to build a dataset for 1-D Hydrus modeling to characterize salt transport and estimate leaching fractions for forage fields irrigated with saline drainage water**

Rito Medina and Sharon Benes (Plant Science)

**Interaction of salinity levels and gibberellic acid treatments on cotton growth and development**

Gurbinder Kang and Ranjit Riar (Plant Science)

**Salinity Tolerance Evaluation of Four Varieties of Alfalfa (*Medicago sativa* L.)**

Victoria De Leon and Ranjit Riar (Plant Science)

**Biomass accumulation and nitrogen fixation by faba bean (*Vicia faba* L.) in various cover crop mixes.**

Harmanpreet Sharma and Ranjit Riar (Plant Science)

**Fabrication and optimization of CZTS semiconductor to complete non-toxic thin-film solar cell using ZnS n-type semiconductor**

Dhara Goswami, Jaden Uphoff, Ajith Weerasinghe (Mechanical Engineering)

**Universal and Standard Batteries for Modular Battery Swapping Systems in EVs**

Malindu Jayasekara, Ajith Weerasinghe (Mechanical Engineering)

**Using behavioral responses to uncover emotional associations to cheese aromas**

Carmen Licon, Joanie Snow and Daniel Olmos (Food Science & Nutrition)

**Gut-Content Analysis to Determine Previous Host Plants of *Leptoglossus zonatus* Infesting California Orchards**

Danielle Evans, Houston Wilson, Jacob Wenger (Plant Science)

**Production of Agricultural Water and Nutrients from Nontraditional Water Sources**

William Wright and Walter Mizuno (Mechanical Engineering)

**Assessing Root Growth in Horticulturally Important Crops Via Use of Ground Penetrating Radar (GPR)**

Dilruba Yeasmin, John Bushoven, Allen Vizcarra (Plant Science)

**Comparative Analysis of Aerial Imagery and Ground Based Data for Crop Water Status Evaluation**

Dayadeepak Singh, Nandakishor Srinivasamurthy, Dilruba Yeasmin, Fayzul Pasha, Guillermo Valenzuela (Geomatics Engineering)

**Quantifying Oxidative Stress in Tomatoes Subjected to Airjection Irrigation**

Chaitanya Muraka, Laurent Dejean, Florence Cassel S., Dave Goorahoo (Plant Science)

**Energy Devices and Plasma Applications Lab**

Sankha Banerjee, Mai Tser Yang, Shubadip Sarkar, Manan Sehgal, Prakhyat Gautam (Mechanical Engineering)