

California Pistachio Research Board

2018 Research Projects

| Proposal Title | Principal Investigator | Amount Awarded |
|--|----------------------------|----------------|
| Entomology Research | | |
| Monitoring and overcoming pesticide resistance in navel orangeworm (<i>Amyelois transitella</i>) | May Berenbaum | \$40,000 |
| Improving and verifying quality of mass-reared navel orangeworm for sterile insect technique | Chuck Burks/Houston Wilson | \$61,817 |
| Comparing the feeding damage of the invasive brown marmorated stink bug to native large bugs | Kent Daane | \$18,645 |
| Investigating pheromones for the Leaf-footed bug, <i>Leptoglossus zonatus</i> : developing an alternative control to insecticides | Andrea Joyce | \$42,000 |
| Another look at pheromonal or related attractants for leaf-footed bugs (<i>Leptoglossus</i> spp.) infesting California nut crops | Jocelyn G. Millar | \$33,226 |
| Comprehensive ecological and economic modeling of pesticide spray applications in pistachio orchards | Christian Nansen | \$64,042 |
| Population dynamics and epidemiology of navel orangeworm damage to pistachios | Joel Siegel | \$50,000 |
| Spray Drift Mitigation Using Opposing Air-Blast Sprayers | Robert A. Van Steenwyk | \$20,814 |
| The use of trap crops or hedgerows to monitor and suppress large bug damage | Houston Wilson | \$33,190 |
| Horticulture Research | | |
| Integrated Conventional and Genomic Approaches to Pistachio Rootstock Development | Malli Aradhya | \$105,164 |
| Unlocking the Full Yield Potential of Pistachios: Studying seasonal trends in branch level photoassimilation, carbohydrate partitioning and endogenous hormonal concentrations | Gurreet Brar | \$75,274 |
| Pistachio Improvement Program | Pat J. Brown | \$45,000 |
| Monitoring the physiological status of pistachio trees by gene activity measurements to optimize the timing and improve our understanding of rest-breaking treatments | Patrick Brown | \$60,222 |
| Examination of Seedlings from Open-Pollinated Female <i>Pistachia atlantica</i> Parent Trees of UCB-1 Seed: Paternity Testing, Phenotypic Characterization and Development of Improved DNA Markers | Gerald Dangl | \$23,767 |
| Characterization of root plasticity in pistachio rootstocks for better nutrient uptake and stress response | Georgia Drakakaki | \$84,166 |
| Pistachio Flower Development: Parthenocarpy, Vestigial Primordium and Bud Differentiation | Louise Ferguson | \$75,000 |
| Clonal UCB-1 Pistachio Rootstock Micropropagation: Is pistachio Bushy top syndrome a variant that occurred in tissue culture? | Deborah Golino/John Preece | \$22,864 |
| Development of New, Reliable, Vigorous, Clonal Rootstocks | Deborah Golino/John Preece | \$59,061 |
| Identification of Superior UCB-1 Rootstocks using DNA Markers: Phase 2, Year 2 | Deborah Golino/John Preece | \$110,366 |
| Evaluation of U.C. pistachio breeding scion and rootstock selections | Craig Kallsen | \$13,000 |
| Evaluating new training systems for pistachio | Bruce Lampinen | \$61,707 |
| Understanding the impacts of soil-water salinity on water uptake and consumptive use of mature pistachio orchards grown in the San Joaquin Valley with micro-irrigation | Daniele Zaccaria | \$98,234 |
| Development of Tree Carbohydrate Budget Based Methods for Sustainable Management of Pistachio Orchards under Variable Central Valley Climatic Conditions | Maciej Zwieniecki | \$75,000 |
| Pathology Research | | |
| Phenotype characterization of PBTS affected trees entering maturity: investigation of tree size, yield potential, and variability of 8th leaf PBTS trees | Elizabeth Fichtner | \$18,999 |
| Biology, Epidemiology, and Management of Anthracnose Blight and Stigmatomycosis of Pistachio in California and Phoma Blight in Arizona | Themis J. Michailides | \$58,646 |
| Early Detection of Pistachio <i>Botryosphaeria</i> Panicle Blight Disease Using High-throughput Plant Phenotyping | Alireza Pourreza | \$48,919 |
| Evaluating pistachio rootstock tolerance to soil borne diseases | Florent Trouillas | \$69,595 |
| Characterizing pistachio rootstocks for host status to plant-parasitic nematodes | Andreas Westphal | \$50,684 |
| Education Research | | |
| Improving the Online Pistachio Educational Program to Train Pistachio New Growers and Handlers | Carlos H. Crisosto | \$19,768 |
| Food Safety | | |
| Factors Affecting the Efficacy of AF36, Improvement of the biocontrol Agent, and Monitoring Commercial Applications | Themis J. Michailides | \$77,355 |