

California Department of Food and Agriculture

Marketing Branch

Approval of Meeting Minutes and Actions

Program:	California Pistachio Research Board
Meeting Date:	February 9, 2022
Meeting Location:	Videoconference and Teleconference

Notable Actions:

2022 0209	#02	Motion to recommend the appointment of Zack Raven (1 st alternate member) to fill the vacant member position on the Board and moving each alternate member up one position. [Approved by Department Order on April 5, 2022]
2022 0209	#03	Motion to recommend the appointment of Michael Naito to fill the vacant the 4 th alternate member position on the Board. [Approved by Department Order on April 5, 2022]
2022 0209	#04	Motion to allocate \$2,123,394 to fund 33 research proposals in the 2022-2023 fiscal year budget (\$15,000 – Education and Outreach; \$142,999 – Food Safety; \$1,965,395 – Standard Research), as shown in Exhibit A.

APPROVED

SECRETARY OF FOOD AND AGRICULTURE

BY: 
 Joe Monson, Branch Chief
 Marketing Branch

DATE: JULY 28, 2022



**MEETING MINUTES
CALIFORNIA PISTACHIO RESEARCH BOARD
Board of Directors Meeting**

**February 9, 2022 – 9:00 a.m.
Video/Teleconference Meeting via Zoom**

Roll Call

Chairman Tom Coleman called the meeting to order at 9:00 a.m. A complete board roster is shown below with an * indicating those in attendance. A quorum was established.

Members	Alternates	Advisory Committee
* Tom Coleman, Chairman	1 st Alternate	Robert Beede
* Gerrid Climer	* Zack Raven	Carl Fanucchi
* Jeremy Blackwell	2 nd Alternate	* Todd Fukuda
* Rob Goff	* Erik Wilkins	* Mike Harvey
* Doug Mueller	3 rd Alternate	* Brad Higbee
* Brian O'Neill	* Clay Beck	Michael Naito
Mike Smith	4 th Alternate	Anthony Rabo
* Todd Tracy	* Joseph Coelho	* Rod Stiefvater
* Christine Milgrom		

*indicates those members, alternates and advisors in attendance.

Others Present: Shane Bickner, Joe Mendonca, Thomas Jones, Mirek Wilczek (CDFA), Miranda Townsend (CDFA), Juanita Owens, and Bob Klein.

Approval of the November 4, 2021 Meeting Minutes

Board Motion 2022-02-9 #1

It was moved by Jeremy Blackwell and seconded by Gerrid Climer to approve the November 4, 2021 minutes as written. The motion passed unanimously with no abstentions.

Public Comments on Agenda Items

There were no comments on agenda items from the public.

CDFA Report

Mirek Wilczek reported that the CPRB continuation hearing that took place on January 20, 2022, is being reviewed. We should have the results in a few weeks. He also introduced Miranda Townsend, the newest economist to join the CDFA staff.

Manager's Report

Bob Klein reported the following:

1. There has been no movement on the weather stations. Semios has too many restrictions on their website. Another company will be giving a bid for the project.
2. The USDA is working on the addition of testing for internal kernel discoloration. This will potentially cost the industry millions. Bob Klein and others are working to prevent this testing. Research is also needed to find the cause of this discoloration.
3. The USDA will be getting 1.2 million for scientific research for SIT this year and it will be in their budget for future years.

Fill Vacancy/Appoint 4th Alternate

Rod Stiefvater resigned from the Board in November 2021. When there is a vacancy on the Board, the usual practice is to move alternates up one position. The Board voted to move Zack Raven to a member position and each alternate up one position leaving the 4th Alternate position vacant. Michael Naito (currently on the Advisory Committee) was nominated to be the 4th Alternate.

Board Motion 2022-02-9 #2

It was moved by Gerrid Climer and seconded by Doug Mueller to move Zack Raven (1st Alternate) to the vacant member position and move each alternate up one position. The motion passed unanimously with no abstentions.

This action requires separate approval by the Department

Board Motion 2022-02-9 #3

It was moved by Rob Goff and seconded by Brian O’Neill to appoint Michael Naito to the 4th Alternate position. The motion passed unanimously with no abstentions.

This action requires separate approval by the Department

Proposal Review/Funding Decisions

The 2021-2022 approved budget allocates \$2,750,000 for research (\$2,000,000 -- standard research, \$350,000 -- research contingency, \$150,000 -- Education and Outreach, \$250,000 -- Food Safety). The Board received forty-four proposals requesting funds totaling about \$2.9 million. This year researchers recorded their proposal presentations for uploading to the CPRB website. Board members had copies of the proposals and access to the videos for viewing. Today the Board reviewed these proposals deciding which projects to fund. The Board granted funding for 33 of the proposals. A total of \$2,123,394 was allocated to fund research (\$15,000 – Education and Outreach; \$142,999 – Food Safety; \$1,965,395 – Standard Research). For detailed funding see Exhibit A – 2022 Proposal Chart.

Board Motion 2022-02-9 #4

It was moved by Gerrid Climer and seconded by Brian O’Neill that the board allocate \$2,123,394 to fund the approved research proposals (Exhibit A). The motion passed unanimously with no abstentions.

Other Business

There was no other business.

Public Comment

There were no public comments.

Topics for Future Consideration

Topics mentioned for future discussion: 1) need other models and forms of input for calculation of chill in order to better predict the crop size; 2) projects to study canopy management (machine pruning vs. hand pruning and brush removal costs).

Scheduling of Future Meetings

No meetings were scheduled at this time.

There being no other business, the meeting was adjourned at 11:20 a.m.

Certification

I, Bob Klein, Manager of the California Pistachio Research Board, do hereby certify that, to the best of my knowledge, the foregoing is a true and correct account of the meeting of the California Pistachio Research Board conducted on February 9, 2022.

Date: _____
Bob Klein, Manager - California Pistachio Research Board

Exhibit A - 2022 Research Proposal Chart - Award Amounts

Project Num.	Amount Requested	Amount Awarded	Principal Investigator	Proposal Title	Project Year	Comments
Education						
ED-2022-1	\$15,000.00	\$15,000.00	Julia Stover	California Pistachio Research Board Event Facilitation	ongoing Year 3	
Entomology						
ENT-2022-2	\$68,799.00		Raman Bansal	Optimizing the use of Neonicotinoids for Controlling Gill's Mealybug	1 of 1	
ENT-2022-3	\$59,230.00	\$59,230.00	Tiziana Bond	Advancing Enhanced Raman Spectroscopy to Detect and Measure NOW Pheromones	1 of 2	
ENT-2022-4	\$52,403.00	\$52,403.00	Kent Daane	Cover Crops and trap crops to support biological control of large bugs	2 of 3	(\$54,639 next year)
ENT-2022-5	\$51,437.00	\$51,437.00	Kent Daane	Seasonal biology and controls of the Gill's mealybug in pistachio	2 of 3	(\$53,587 next year)
ENT-2022-6	\$29,545.00	\$29,545.00	David Haviland	Optimizing chemical control programs for Gill's mealybug, <i>Ferrisia gilli</i> , in Pistachio	2 of 2	ask him to add residue testing, Gerrid willing to work with him
ENT-2022-7	\$24,575.00	\$24,575.00	Andrea Joyce	Attractants for Leaffooted Bugs in Pistachios	2 of 2	
ENT-2022-8	\$23,745.00	\$23,745.00	Jocelyn G. Millar	Identification, synthesis, and development of the sex pheromone of the mealybug <i>Ferrisia gilli</i>	2 of 3	add degree day model
ENT-2022-9	\$32,169.00	\$32,169.00	Jocelyn G. Millar/Houston Wilson/Kent Daane	Another look at pheromonal or related attractants for leaffooted bugs (<i>Leptoglossus</i> spp.) infesting California nut crops	6 of 6	Millar \$11,330; Wilson \$20,839 ---Also asking Almond Board for \$32,169
ENT-2022-10	\$8,402.00	\$8,402.00	Andreas Neuman/David Haviland	Effective biological control of Gill's mealybug from drone releases of Green lacewing	2 of 2	Neuman \$1,500/Haviland \$6,902
ENT-2022-11	\$64,064.00		Alireza Pourreza	Mapping Mummy Nuts to Improve Orchard Sanitation	1 of 1	Pourrez \$47,450; Willson \$16,614 (anticipated year 2 budget \$49,683)
ENT-2022-12	\$80,000.00	\$80,000.00	Joel P. Siegel	Improved control of navel orangeworm: focus on increasing insecticide efficacy using adjuvants and improved timing	4 of 5	
ENT-2022-13	\$125,645.00	\$125,645.00	Houston Wilson/Chuck Burks/Raman Bansal	Producing sterile navel orangeworm on demand for improvement of pest management	2 of 2	\$63,209 Wilson, \$49,055 Burks, \$13,081 Bansal - matching funds requested from Almond Board
ENT-2022-14	\$49,103.00		Houston Wilson/Chuck Burks	New Automated Traps and Online Pest Forecasting Tool for Navel Orangeworm	1 of 2	Wilson \$39,103; Lyons \$10,000 (year 2 est. is \$52,186) Bob will ask for modifications
ENT-2022-15	\$65,749.00	\$65,749.00	Houston Wilson/Chuck Burks/Wang	Influence of Pistachio Hull Degradation and Shell Split on NOW Egg Deposition and Infest	3 of 3	Wilson \$38,687; Burks \$13,565; Wang \$13,505

Food Safety						
FS-2022-16	\$77,500.00	\$77,500.00	Themis J. Michailides	Comparing Efficacy of two registered atoxigenic strains biocontrol products to reduce aflatoxin contamination and expanding Area-wide Long-term Mycotoxin Management Programs	1 of 3	
FS-2022-17	\$65,499.00	\$65,499.00	Themis J. Michailides	A survey of fungi producing Ochratoxin A in California pistachios and management of contamination in the field	3 of 4	
Horticulture: Agronomics						
HA-2022-18	\$91,352.00	\$91,352.00	Douglas Amaral	Assessing Nitrogen Uptake to Develop Best Management Practices and Early Leaf Sampling Protocols for Pistachio Cultivars 'Lost Hills' and 'Golden Hills'	2 of 3	Year 3 funding est. \$60,000
HA-2022-19	\$52,140.00		Louise Ferguson	Long Term Saline Irrigation Strategies for Pistachios	1 of 2	ask to rewrite
HA-2022-20	\$68,485.00	\$68,485.00	Phoebe Gordon	Determining non-bearing pistachio nitrogen and phosphorus needs	1 of 4	Future funds: approx. \$50,000/year from 2023-2025
HA-2022-21	\$33,969.00	\$33,969.00	Phoebe Gordon	Evaluating commercially available passive plant water status measurement devices	1 of 2	
HA-2022-22	\$57,020.00	\$57,020.00	Phoebe Gordon	Evaluation of Salinity, Boron, and Soil Hypoxia on Pistachio Tree Growth Year 3	3 of 3	
HA-2022-23	\$93,978.00	\$93,978.00	Bruce Lampinen/Mae Culumber	Evaluating new training systems for pistachio	4 of 7	Lampinen \$49,869; Culumber \$44,109
HA-2022-24	\$57,675.00		Giulia Marino	Physiological Responses of Pistachio to Heat and Water Stress	1 of 1	
HA-2022-25	\$20,000.00	\$20,000.00	Julia Stover	California Pistachio Weather Models Update	1 of 1	
HA-2022-26	\$56,000.00	\$56,000.00	Kaomin Vang/Gary Banuelos	Saline Irrigation on Young Kerman Trees Pistachio on UCB-1 and PGI Rootstock grown in Field Lysimeters	1 of 1	
HA-2022-27	\$49,849.00		Dilruba Yeasmin	Water Use Optimization and Stress Management through Combination of Advanced Technologies in Young Pistachio Orchard	1 of 2	2 year total \$94,673
Horticulture: Genetics						
HG-2022-29	\$152,024.00	\$152,024.00	Pat J. Brown	Collaborative Pistachio Rootstock Breeding	2 of 3	Requesting Separate awards: Davis team - \$57,012; Trouillas - \$52,412; Michailides - \$42,600.
HG-2022-30	\$178,663.00	\$178,663.00	Pat J. Brown	Pistachio Improvement Program	5 of 10	
HG-2022-31	\$51,704.00	\$51,704.00	Christine Diepenbrock	Dissecting the genetics/genomics of nutritional quality traits in pistachio	1 of 2	
HG-2022-32	\$96,848.00	\$96,848.00	Georgia Drakakaki	Dissection of Pistachio Fruit Development Towards Optimal Shell Split and Insect Resistance	3 of 5	to be last year

HG-2022-33	\$9,700.00	\$9,700.00	Craig Kallsen	Pistachio Scion and Rootstock Evaluation	1 of 2	
HG-2022-34	\$129,796.00		Richard Michelmore	Development Of Molecular Markers And Biotechnological Approaches For Pistachio To Improve Agricultural Traits	2 of 2	Erik - ask to remove obj. 2
HG-2022-35	\$127,594.00	\$127,594.00	J. Grey Monroe	Pistachio Pan-genome for Accelerated Breeding	2 of 3	
Horticulture: Physiology						
HP-2022-36	\$80,431.00	\$80,431.00	Barbara Blanco-Ulate	Effect of bloom time on pistachio hull integrity and nut quality at harvest	1 of 1	
HP-2022-37	\$40,510.00	\$40,510.00	Barbara Blanco-Ulate	Early detection of pistachio hull breakdown by biomarkers in Kerman and Golden Hills	1 of 1	
HP-2022-38	\$54,962.00		Georgia Drakakaki	Evaluation of pistachio rootstocks for high root carbon storage, water use efficiency and salinity tolerance	3 of 5	
HP-2022-39	\$64,597.00	\$64,597.00	Li Tian	Gene expression marker-enabled precise and reliable application of rest-breaking enhancing chemicals	1 of 2	
HP-2022-40	\$83,280.00		Maciej Zwienicki	Confronting Central Valley's Variable Climatic Conditions: Developing Novel Tree Carbohydrate Budget-Based Methods for the Sustainable Management of Pistachio Orchards	4 of 4	rewrite
Mechanics						
ME-2022-41	\$59,671.00		Reza Ehsani	Enhancing pistachio mechanical harvesting machines using a data-driven model	1 of 1	
ME-2022-42	\$65,152.00	\$60,000.00	Stavros Vougioukas/Patrick H. Brown	Development of Precision Yield Monitor For Pistachio	1 of 2	Asking Almond Board for \$65,000 - budget for year 2 is \$45,485
Pathology						
PA-2022-43	\$65,038.00	\$65,038.00	Themis J. Michailides	Quantification and management of fungicide resistance in Alternaria populations causing Alternaria late blight in California pistachio orchards	2 of 3	ask for some adjustments
PA-2022-44	\$64,131.00		Florent Trouillas	Evaluating the tolerance of new commercial UCB1 rootstock clonal lines to phytophthors	1 of 3	
PA-2022-45	\$64,582.00	\$64,582.00	Andreas Westphal	Is there a risk of plant-parasitic nematodes in pistachio on current and future rootstocks?	2 of 3	
TOTAL	\$2,862,016	\$2,123,394				

Education	\$15,000
Food Safety	\$142,999
Standard	\$1,965,395