

**CALIFORNIA AVOCADO COMMISSION
PRODUCTION RESEARCH COMMITTEE
MEETING MINUTES**

May 23, 2024

A meeting of the Production Research Committee (PRC) of the California Avocado Commission (CAC) was held on Thursday, May 23, 2024, with the following people participating:

MEMBERS PARTICIPATING:

Danny Klittich, Chair
John Burr (9:51)
Jim Davis
Allisen Carmichael
Consuelo Fernandez
Darren Haver
Leo McGuire
Daryn Miller
Ryan Rochefort
Jason Cole, *ex officio*

CAC STAFF PARTICIPATING:

April Aymami
Ken Melban

OFFICIALLY PARTICIPATING:

Dr. Tim Spann, Spann Ag Research & Consulting

GUESTS PARTICIPATING:

Victor Araiza
John Berns
Ben Faber
Jessica Hunter
Doug O'Hara

CALL TO ORDER

Danny Klittich, Production Research Committee (PRC) Chairman, called the meeting to order at 9:00 a.m. with a quorum present.

OPPORTUNITY FOR PUBLIC COMMENT

There were no public comments.

APPROVAL OF MINUTES OF MARCH 14, 2024 PRODUCTION RESEARCH COMMITTEE MEETING

MOTION

To approve the minutes of the March 14, 2024 Production Research Committee meeting.

(McGuire/Haver) MSC – Vote Tally: Yea 6, Nay 0, Abstain 1

Motion 24-5-23-1

RESEARCH PROGRAM DIRECTOR'S REPORT

Dr. Spann informed the Committee that Jesse Landesman, graduate student at UC Santa Barbara, was awarded the FFAR Fellowship she had applied for and that CAC will be officially serving as her industry sponsor. Her research project will deal with salinity in avocados and is currently under development.

Dr. Spann also mentioned that Paloma Dadlani, M.S. student under Dr. Mark Hoddle, presented her final research seminar on her work on the avocado lace bug on May 14, 2024. CAC provided funding to Dr. Hoddle to support Ms. Dadlani's research. Dr. Spann briefly touched on the highlights from her seminar and told the Committee that summary articles of her work will be forthcoming in *From the Grove*.

DISCUSSION ITEMS

Danny Klittich opened the discussion by welcoming all the members to the Production Research Committee. He asked each member to take a moment to introduce themselves and briefly describe their role in the California avocado industry. Following introductions, discussion began on the agenda items.

A. Review and rank list of research and grower education priorities

Danny Klittich explained that he had sorted the list of research and grower education priorities into categories. He asked that the Committee members take the time to review the list and each member rank their top priority in each category and be prepared to discuss those rankings at a future meeting. Chairman Klittich also asked the Committee to select their top priority from each category for *From the Grove* articles and send those to Dr. Spann for article development in future issues.

B. Review draft request for proposals for management services for Pine Tree Ranch

Dr. Spann explained to the Committee that since the lease for Pine Tree Ranch had been renewed for a 5-year term CAC needed to put out a new request for proposals for management services for the grove. A copy of the previous RFP from 2019 had been shared with the Committee for their review and input. Dr. Spann explained that in 2019 the Committee was involved in reviewing the RFP responses and making a recommendation to the Board. Chairman Klittich expressed the opinion that he did not believe this was a matter for the Committee to be involved in, beyond providing input into the RFP, and that the decision should be made by CAC staff. Allisen Carmichael, current Pine Tree Ranch grove manager, said she would review the RFP and provide feedback to Dr. Spann to ensure it accurately reflected everything currently being done at the grove.

C. Open discussion of new or old business from PRC members

Consuelo Fernandez brought up the idea of talking with companies that have tree stress monitoring equipment to see if any of them would be interested in installing such equipment at Pine Tree Ranch for CAC to be able to share with growers during field days and offer opinions on the usefulness of such equipment. Dr. Spann stated that he had been approached by such a company in early 2023, but put them on hold until the lease renewal was finalized. Dr. Spann agreed to reach out to companies to see if there was any interest in them installing their equipment at the ranch.

Jim Davis mentioned that a lot of work has been done on other crops looking at the mycorrhizal and other soil microorganism communities that live in conjunction with plants. He asked if there would be any benefit to looking at old growth avocado forests in the native range of avocados to see if there would be anything that could help the trees in avocado groves. This would be similar to how entomologists explore the native range of new pests to find natural enemies.

Danny Klittich shared with the Committee a brief proposal from Andre Biscaro, irrigation farm advisor, to adapt a simple online irrigation calculator that Mr. Biscaro had developed for use with avocados. The Committee looked at the existing calculator, available for strawberries, celery and other row crops, and liked the simplicity of it compared to other tools currently available. The Committee also liked that the tool would be able to integrate the new crop coefficient being developed by Dr. Ali Montazar when that work is completed.

MOTION

To recommend funding the proposal “Adapting a user-friendly online irrigation calculator for avocados” in the amount of \$7,236.

(Davis/Miller) MSC Unanimous

Motion 24-5-23-2

The Committee asked for an update on developing the searchable archive of *From the Grove* articles. Dr. Spann explained that the process was waiting for him to develop a list of all the articles to put into the database so it could be created.

Leo McGuire asked if there was any update on the registration of glufosinate for use on avocados in California. Ken Melban explained that the registration was waiting for action from the California Department of Pesticide Regulation, but due to outside issues the Department had become very politicized and the process was delayed, but CAC would reach back out to DPR to see if there are any updates.

Lastly, a brief discussion ensued about the benefits of past CAC efforts to fund pest exploration in other countries. Ken Melban and Dr. Spann explained that the USDA is currently working to allow imports from Guatemala and all the pest risks identified were only known because of the work that CAC funded over a decade earlier. The Committee asked what countries may be looking for US access next and would it be beneficial to conduct similar studies in those countries. Ken Melban and Dr. Spann agreed to have

those discussions with Dr. Mark Hoddle, UC Riverside entomologist, who conducted the Guatemala studies.

ADJOURN MEETING

Danny Klittich, Production Research Committee (PRC) Chairman, adjourned the meeting at 10:51 a.m.

Respectfully submitted,

Timothy Spann

EXHIBITS ATTACHED TO THE PERMANENT COPY OF THESE MINUTES

EXHIBIT A May 23, 2024 Production Research Committee AB 2720 Roll Call Vote Tally Summary

EXHIBIT B Proposal: "Adapting a User-friendly Online Irrigation Calculator for Avocados"



CALIFORNIA AVOCADO COMMISSION
Production Research Committee
AB 2720 Roll Call Vote Tally Summary

To be attached to the Meeting Minutes

Meeting Name: <i>California Avocado Commission Production Research Committee Meeting</i>	Meeting Location: <i>Hybrid In-person – Ventura County Cooperative Extension Office, Ventura Online – Zoom</i>	Meeting Date: <i>May 23, 2024</i>
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Attendees Who Voted	<u>MOTION</u> <u>24-5-23-1</u>	<u>MOTION</u> <u>24-5-23-2</u>
Danny Klittich, Chair	<i>Did not vote</i>	<i>Did not vote</i>
John Burr (9:51)	<i>Absent</i>	<i>Yea</i>
Jim Davis	<i>Abstain</i>	<i>Yea</i>
Allisen Carmichael	<i>Yea</i>	<i>Yea</i>
Consuelo Fernandez	<i>Yea</i>	<i>Yea</i>
Darren Haver	<i>Yea</i>	<i>Yea</i>
Leo McGuire	<i>Yea</i>	<i>Yea</i>
Daryn Miller	<i>Yea</i>	<i>Yea</i>
Ryan Rochefort	<i>Yea</i>	<i>Yea</i>
<i>Outcome</i>	<i>6 Yea, 0 Nay, 1 Abstain</i>	<i>Unanimous</i>

Adapting a User-friendly Online Irrigation Calculator for Avocados

Co-Principal Investigators:

Andre Biscaro, UC ANR Irrigation and Water Resources Advisor, Ventura County

Ben Faber, UC ANR Farm Advisor, Ventura County

Daniel Klittch, Director of Agronomy, Mission Produce

Andy Lyons, UCANR Program Coordinator, IGIS Statewide Program (programmer)

Irrigators and farm managers are the frontliners of irrigation management decisions and therefore essential parties for conserving water and optimizing crop yield and plant health. However, decisions on how long to irrigate a crop are made with no data in most cases. Significant improvements in water use efficiency can be achieved with increased adoption of data-driven irrigation decision frameworks. With weather conditions constantly changing, estimating crop water needs on a weekly basis can be a challenging task in the absence of relevant data such as weather associated with current crop coefficients.

Irrigation Calculator

Calculator currently under development!

This calculator estimates irrigation requirements based on weather station and crop stage data. It is currently designed for strawberry, celery, cabbage, broccoli and cauliflower production in Ventura County, CA. [More about this calculator.](#)

Zip Code ?

Last Irrigation Date ?

Crop ?

Crop Stage ?

Application Rate (in/h) (optional) ?

To address this issue and to increase adoption of information-driven irrigation decisions, co-PIs Biscaro and Lyons have worked for the last few years to develop an user-friendly online irrigation calculator: <https://ucanr-igis.shinyapps.io/irrigation-calc/>. Please, check it out.

The calculator, which is currently developed for strawberries, celery, cabbage, broccoli and cauliflower, is still in its initial beta testing phase, where irrigation recommendations and user interface are being assessed by cooperating growers.

Figure 1. Print screen of the current format of the irrigation calculator.

The calculator presents a simple user interface to enter a location (via zip code), the crop, crop stage, application rate, and last irrigation date. When the user clicks 'Calculate', it connects to the CIMIS website, downloads the most recent reference ET and precipitation data from the station related to the zip code entered, and does all the calculations. This normally takes only 1-2 seconds, after which the user sees the recommended number of minutes to irrigate, with a link to view more details of the calculation. This simple design is intended to allow a user to get an irrigation recommendation quickly and with only a few clicks.

Adapting this concept to avocados will require additional meetings between co-PIs and the programmer and approximately 88 hours (11 days) of programming time to make the necessary changes, including troubleshooting it and adding improvements. Authors are also committed to present on the topic and write an article for trade publications.

Budget

UC ANR programmers have an approved recharge rate of \$82.23/hour. The number of hours needed to complete the tasks envisioned for this project is 88 hours, coming out to a total of \$7,236.