

**CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE (Department)**  
**FERTILIZER INSPECTION ADVISORY BOARD (FIAB)**

**VIDEO CONFERENCE MEETING**

**September 29, 2021**  
**9:00 AM – 12:00 PM**

**MINUTES**

**ATTENDING**

**MEMBERS**

Chris Gallo  
Dave McEuen  
Gary Silveria  
Greg Cunningham  
Jake Evans  
Melissa McQueen, Chair  
Timothy Howard

**ABSENT**

Miguel Duarte

**CDFA STAFF**

Amadou Ba  
Adriana Avalos  
Angelia Johnson  
Barzin Moradi  
Elizabeth Moseby  
Emad Jahanzad  
Kris Gulliver  
Maria Tenorio Alfred  
Mark Cady  
Martin Burger  
Maryam Khosravifard  
Natalie Jacuzzi  
Nick Young  
Nicole Nunes  
Nicole Smith  
Stacy Aylesworth

**INTERESTED PARTIES**

Renee Pinel

**INTRODUCTIONS AND ANNOUNCEMENTS**

The meeting began at 9:03 AM.

**ROLL CALL**

Roll was called, and a quorum was established. Jake Evans joined the meeting at 9:15AM.

**APPROVE JULY 1, 2021 MEETING MINUTES**

Chair, Melissa McQueen, requested that the board review the minutes from the July 1, 2021 FIAB meeting.

**MOTION:** Tim Howard moved to approve the July 1, 2021 minutes as presented; Greg Cunningham seconded. The motion passed unanimously by all board members present with a vote of 6 to 0.

### **DEPARTMENT / DIVISION / BRANCH UPDATES**

Dr. Amadou Ba provided the Department, Division, and Branch updates.

COVID-19 protocols now require weekly testing for unvaccinated staff. If there are more than 20 unvaccinated staff at one office location, on-site testing will be required.

The Department of Cannabis Control is a new state department that combined three programs from the Department of Health, Consumer Affairs, and the Department. The organic cannabis program still receives regulatory services through the Department.

Undersecretary, Jenny Lester Moffitt, was appointed and confirmed as the United States Department of Agriculture's (USDA) Undersecretary for Marketing and Regulatory Affairs. Therefore, the Department's Undersecretary position is now vacant.

Martin Burger was engaged in filling Kathryn Coke's Environmental Scientist's fertilizer registration position. There were 52 applicants for the position; five were interviewed. Mehdi Ansari from the Department's Asian Citrus Psyllid program accepted the position. Natalie Jacuzzi will be leaving the branch's Fertilizer Research and Education Program (FREP) as she has accepted a promotional opportunity as a Senior Environmental Scientist (Supervisory) for the Department's Industrial Hemp Program.

At the July 1, 2021, the FIAB approved a \$3 million project, to be distributed over three years, for FREP's Nitrogen and Irrigation Management Outreach Initiative. The grant has been executed with the University of California - Agriculture and Natural Resources (UCANR). In October 2021, UCANR will work with the Department's eligibility list to fill positions for the project.

The Commercial Feed Inspection Program's annual veterinary feed directive report is being finalized. It addresses antimicrobial use and requires veterinary oversights. The Livestock Drugs Program has received several inquiries regarding who regulates ivermectin, a livestock drug, and its uses in treatment of COVID-19.

### **FUND CONDITION / MILL ASSESSMENT / BUDGETS**

Nick Young presented the fund conditions, mill assessment, and current and proposed budgets.

The Fertilizer Program's beginning fund condition balance for FY 2021/22 was \$10,709,912. Revenue was \$5,744,283. Expenditures were \$5,467,855 and encumbrances were \$233,013. The adjusted ending balance for Fertilizer was \$10,753,327.

The Organic Input Material (OIM) Program had a beginning balance of \$2,059,535. Revenue was \$1,859,605. Expenditures were \$882,020 and encumbrances were \$73,006. The adjusted ending balance for OIM was \$2,964,114.

The combined beginning balance for both programs was \$12,769,447. Revenue was \$7,603,888. Expenditures of \$6,349,875 and encumbrances of \$306,019. The adjusted combined balance for both programs was \$13,717,441.

FREP's beginning balance was \$6,192,899. Revenue was \$3,128,096. Expenditures were \$2,054,656 and contractual encumbrances through June 30, 2021 were \$1,361,540. The ending balance for FREP was \$5,904,799. Young stated the UCANR contract approved at the July 1, 2021 FIAB meeting was not included in this fund condition report because it does not begin until January 2022.

Mill assessment trends were displayed from fiscal years (FY) 2016/17 through 2020/21. The mill fee was reduced from 3 to 2.5 in FY 2020/21; therefore, revenues stayed at a comparable rate from earlier years. The implemented reduction worked as intended.

Young informed the board that the budgets for the Fertilizer and OIM Programs include a proposed budget for FY 2022/23 and revised and proposed budgets for FY 2021/22. The most notable increase was due to salary increases, which were the result of reversing the Governor's COVID-19 personal leave program (PLP) that reduced salaries by approximately ten percent. Initially, the PLP was expected to last for two fiscal years; however, the reduction was reversed after one full year. Additionally, salary increases were granted based on union contracts, which were approved before the pandemic, but were temporarily on hold.

Personnel services for the FY 2021/22 revised budget are proposed at \$3,654,518 for Fertilizer and \$766,419 for OIM. The combined personnel services are \$4,420,937. Operating expenses for the budget revision for FY 2021/22 are proposed at \$660,250 for Fertilizer and \$507,200 for OIM. The combined revision total was \$1,167,450. The revised distributed costs for FY 2021/22 are \$2,074,423 for Fertilizer and \$480,028 for OIM. The combined total for revised distributed costs was \$2,554,451. There was a gas tax credit in the amount of \$150,000 for Fertilizer and \$35,000 for OIM, for a combined credit of \$185,000. The total proposed budget with revisions for FY 2021/22 was \$6,239,191 for Fertilizer and \$1,718,646 for OIM for the total of \$7,957,837 revised budget proposal.

Personnel services for the proposed FY 2022/23 is \$3,732,966 for Fertilizer and \$780,996 for OIM for a combined total of \$4,513,961. Operating expenses for the proposed FY 2022/23 are \$666,750 for Fertilizer and \$507,200 for OIM for a combined total of \$1,167,950. Distributed costs for the proposed 2022/23 fiscal year was \$2,054,934 for Fertilizer and \$475,156 for OIM for a total of \$2,530,090. It is anticipated that there will be a \$150,000 gas tax for Fertilizer and a \$35,000 credit for OIM, for a combined credit of \$185,000. The net proposed total budget for FY 2022/23 is \$6,304,650 for Fertilizer and \$1,722,351 for OIM for a total program budget of \$8,027,002. Young stated that fertilizing material products requiring registration are increasing each year and the program is in need of two additional registration staff to reduce backlog.

Chair McQueen asked if the OIM Program is now self-sufficient since it was previously subsidized by the Fertilizer Program. Young stated that the costs are split according to actual charges and revenue. Adriana Avalos, budget analyst, reiterated that actual costs are calculated during the close of each FY to ensure charges and credits are allocated appropriately.

Jake Evans asked if there are cost savings associated with moving offices. Dr. Ba stated that there will be upfront costs due to moving and tenant improvements, but the branch hopes there are future savings.

There was a question about costs of conducting inspections. It was explained that the Department conducts inspection in California and bordering states and EcoCert performs the other out-of-state and out-of-country inspections. The line item in the budget of \$353,000, under OIM's Operating Expenses and Equipment is for the EcoCert contract. Young informed the board that all inspections were conducted within the required timeframes even in the COVID-19 environment despite the challenges.

There was a question regarding the Attorney General charges; Young explained those charges were in regard to enforcement. The charges represented two significant cases, one closed and one on-going. A little over half of the figure of the first case has come back as part of a settlement. It is anticipated the second case will also result in revenue coming back to the program as well.

**MOTION:** Greg Cunningham moved to approve the revised budget for FY 2021/22 and the proposed budget for FY 2022/23 as presented. Jake Evans seconded; the motion passed unanimously by all members present with a vote of 7 to 0.

Young presented the FREP budget.

Personnel services for FY 2021/22 revised budget is proposed at \$859,735. Operating expenses are \$2,490,404. Distributed costs are \$149,312. There was a \$55,498 gas tax credit. The total proposed revised FY 2021/22 budget for FREP is \$3,443,953.

Personnel services for the FY 2022/23 proposed budget is \$887,048. Operating expenses total are \$3,012,585. Distributed costs total is \$149,312. There is an anticipated gas credit of \$55,498. The total proposed FY 2022/23 budget is \$3,993,447.

The UCANR Contract is included in the revised FY 2021/22 revised budget. It is included as 50 percent of a year because the contract does not begin until October 2021. A complete year figure is represented in the FY 2022/23 budget.

**MOTION:** Chris Gallo moved to approve the revised FY 2021/22 FREP budget and the proposed FY 2022/23 budget. Tim Howard seconded; the motion passed unanimously by all members present with a vote of 7-0.

### **PROGRAM UPDATES**

Dr. Martin Burger presented registration updates. Dr. Burger noted the slides were current as of August 24, 2021. There were 6,744 approved conventional and 1,878 OIM labels. There were 968 conventional label renewals. As of August 24, 2021, there were 9,788 active conventional labels and 3,203 active OIM labels. Dr. Burger compared August 2020 data and noted there has been an overall increase of labels. There was an increase of 285 conventional labels and 282 OIM labels.

Long term trends from January 2018 through July 2021 continue to trend upward for total approvals of new applications for both conventional fertilizers and OIM. For new labels, it is usually around 50 per month, but there were a couple of months with close to 100, generally in OIM.

The numbers do include specialty products, but do not include existing labels that have not been renewed. Once a label is discontinued it does not appear in the database. Two reasons labels are discontinued is because either the firm discontinues the product, or the label is canceled due to the program's enforcement efforts.

Dr. Burger shared concerns about the increase in labeling and registration applications. This results in long work queues and additional completion time. The renewal cycle and large firms are contributing to the increased workload. Dr. Burger noted although morale is still high, there is a need to hire two additional staff in the future to address completing work timely. This will ultimately result in an increase in personnel cost.

Young presented the Association of American Plant Food Control Officials' (AAPFCO) proposal to study the 15 percent rule for slow release fertilizers. There is a North America focus, but the study will not exclude information outside of North America if it is relevant. The goal is to determine the validity of the 15 percent. There will be literature review to determine the efficacy of supporting the value of 15 percent. A comprehensive review for measurable responses, consideration of geographic locations and climates, the crop, the growing rate, and other data will be included in the study. There will be no disclosure of name brands and the project will focus on materials, not the company.

The principal investigator for this study is Dr. Gurpreet Kaur, Assistant Professor at Mississippi State University. The five academic advisors are Dr. James Robbins, University of Arkansas Extension Service; Dr. Max Schlossberg, Penn State University; Dr. Kelly Nelson, University of Missouri; Dr. Beth Guertal, Auburn University; and Dr. Brian Unruh, University of Florida. Associate members are James Bartos, AAPFCO Slow Release Committee Chair; Jim Skillen, Lawn and Horticultural Products Working Group; Bill Hall, Historian; and Ed Thomas, The Fertilizer Institute. It was noted that the Department's Kris Gulliver will be co-chair of the committee. Completion date is anticipated for end of fall 2022.

AAPFCO is seeking funding from leadership states heavily involved in agriculture. The financial goal for this research project is \$31,610. AAPFCO is asking California to contribute \$6,000. Some states are not able to donate money because of their state

budgets. Final results will be published as peer-reviewed research article in peer-reviewed journal. There will be a presentation at the American Society of Agronomy, Crop Science Society of America, and Soil Society of America annual conference.

Discussion ensued regarding the value of this project. Chair McQueen noted that this is a valuable project and the results could be beneficial to the fertilizer industry. Howard concurred. Renee Pinel stated that western-based agriculture did not seem to be represented in the individuals doing the research. Young said that because there is no field work being done, and the study is based on literature review taken from all over North America, including documentation from western regions, the final document findings can be applied to western agriculture. The goal is to find and determine the accurate percentage for maximum benefits of slow release nitrogen and effects on crop production, regardless of the location in the United States. The available materials are in the hundreds and this is a very ambitious project. If the funds are approved, there will still need to be a contract written and submitted for approval by the Department. If AAPFCO receives more funds than the requested \$31,000, the amounts would be modified by AAPFCO so there is not an overage.

**MOTION:** Gary Silveria moved to approve funding \$6,000 for the AAPFCO 15 percent Slow Release Research Project. Chris Gallo seconded; the motion passed unanimously by all members present with a vote of 7-0.

There was a request for an update on the project's status at next board meeting.

Mark Cady informed the FIAB that FREP's 2021 research priorities are: Improving Fertilizer Input Management; Understanding Soil-Plant Processes; and Understanding Loss Pathways. Cady then reviewed the six FREP Technical Advisory Subcommittee (TASC) approved research proposals.

The first project has a three-year timeline and addresses minimizing nitrogen losses in soil profiles, deliver nitrogen fertilizer through irrigation, and bulk of irrigation through a different delivery system. Fertilizer needs will be met from fertilizer zone, evapo-transportation needs will be through irrigation water. The goal is to determine how to reduce the loss of nitrogen by 50 percent. The request is for \$224,090.

The second project has a three-year timeline and addresses nutrient management and irrigation efficiency outreach for Latino and Southeast Asian farmers. The goal is to use available information that is available in English. It will be translated into Spanish and Hmong, and there will be outreach and use of radio broadcasts to disseminate the information. This project is asking for \$229,982.

The third project has a three-year timeline and addresses overlooked pathways of nitrogen loss from organic inputs across contrasting soil types. The hypothesis is that loss is from leaching of dissolved organic nitrogen sources. Preliminary data shows up to 30 percent of loss is through dissolved organic nitrogen. There will be field research, lab studies, and models. The request is for \$223,568.

The fourth project is the Sudan Grass study and its use as feed as an export as well as domestic use in California. It has not been studied in refining the nitrogen fertilization and irrigation management the way other crops have. This project has a four-year timeline; growers in the study can contribute information over a longer period so all growers can benefit. The funding request is for \$243,331.

The fifth project had a three-year timeline and addresses optimizing nitrogen fertilizer concentrations in vegetable transplant production in nurseries. Vegetable transplant nurseries deliver nitrogen as concentrations not “pounds per acre”. This part of agriculture is different and needs its own recommendations. This is the third time of submitting the proposal and the researchers have implemented the recommended changes. The requested funding is \$224,691.

The sixth recommended project has a timeline of three years. It would evaluate the effects of high amounts of liquid ammonia fertilizer products from organically produced materials. It would look at the effects of high ammonia content on soil health, microbial populations, organic carbon turnover in soil, and what leaching potential is from these kinds of products. The funding request is for \$258,366.

The fiscal impacts to approve all six projects for the upcoming fiscal years would total \$223,866 for FY 2021/22; \$447,732 for FY 2022/23; \$447,732 for FY 2023/24; \$254,282 for FY 2024/25 and \$30,416 for FY 2025/26. The total recommended project funding for the four fiscal years would come to \$1,404,028.

The three projects that were not recommended included: Managing Irrigation and Nutrition in Soilless Substrates; Accelerating Agronomic and Educational Outcomes in Nitrogen Management; and Availability of Nitrogen from Surface-applied Organic Amendments and Composts in Vegetables and Orchards.

Discussion ensued regarding the project that evaluated the effects of liquid ammonia products from organic sources on crop growth. There was a hesitancy to fund it because the standards of liquid ammonia are being reviewed by the National Organic Standards Board (NOSB), and there is a possibility that ammonia products for organic uses will be disallowed.

Dr. Burger commented that after it is voted on by the NOSB, it goes to the National Organic Program (NOP). The NOP generally accepts the NOSB recommendations and supports the decisions. Even though the study may have relevance for conventional fertilizers, it may not be relevant for organic fertilizers if NOSB votes to do away with liquid ammonia in organic fertilizers.

It was decided to rereview the validity of this project at the February 2022 meeting when more is known by how the board and program vote.

**MOTION:** Chris Gallo moved to approve funding the first five TASC recommended FREP projects as presented and wait until February 2022 to vote on funding the sixth project related to liquid ammonia in organic products when there is more information. Jake Evans seconded; the motion passed unanimously by all who members present with a vote of 7 to 0.

Cady finished his updates by informing the FIAB there will be an opportunity to participate in a farm tour on the afternoon of October 26, 2021 and that the FREP/Western Plant Health Nutrient Management Conference will be held in-person October 27 and October 28, 2021 in San Luis Obispo, California at the Embassy Suites.

### **BOARD VACANCY RECOMMENDATIONS**

Dr. Ba presented the board vacancies on the FIAB. There are three open positions with four candidates. Greg Cunningham and Jake Evans are sitting board members, Yasuhito Nakajima and Francis Gus Olson were new applicants.

Discussion ensued regarding the applicants.

**MOTION:** Timothy Howard moved to recommend to the Secretary the appointment of Greg Cunningham and Jake Evans to the FIAB. Chris Gallo seconded; the motion passed unanimously by all members present, with a vote of 7 to 0.

**MOTION:** Chris Gallo moved to recommend to the Secretary the appointment of Francis "Gus" Olson to the FIAB. Gary Silveria seconded; the motion passed unanimously by all members present, with a vote of 7 to 0.

Dr. Ba informed the FIAB that board member terms currently expire on October 14. Dr. Ba informed the board that FREP's TASC recently voted to change the terms expiration date to December 31, which ensures that the branch has more time to complete appointment paperwork and hold meetings before the member's terms have expired.

**MOTION:** Gary Silveria moved to recommend to the Secretary that term expiration dates be changed from October 14 to December 31. Tim Howard seconded; the motion passed unanimously by all members present with a vote of 7 to 0.

Cady presented appointment recommendations for the FREP TASC. There were three positions open, with six applicants. However, because of the excellent qualifications of four of the applicants, the TASC requested to approve the appointment of four applicants. The recommendations were Tom Bottoms, a previous TASC member with a Ph.D.; Jairo Diaz, Director of Desert Research Center in Imperial Valley and has a Ph.D. in water resources; Edgar Macias Flores, who has a degree in agronomy and is a Pest Control Advisor/Certified Crop Advisor with Moonlight Packing in Reedley, a fruit growing operation. Flores has practical experience growing up with farmworkers and in a community with lands affected by nitrates in the groundwater; Rob Mikkelsen had a long career working with International Plant Nutrition Institute, followed by the African

Plant Nutrition Institute in Morocco, and is currently head of the agronomy program with YARA.

**MOTION:** Jake Evans moved to recommend the appointment of the four recommended TASC applicants as well as increasing the TASC members from eleven to twelve. Tim Howard seconded; the motion by all members present, with a vote of 7 to 0.

#### **CENTER FOR ANALYTICAL CHEMISTRY (CAC) LAB UPDATE**

Maryam Khosravifard presented the CAC Lab update. There were 675 samples received between January 1, 2021 and July 31, 2021; 98 percent of the samples were completed. There was a total of 2,895 assays requested. The total number of assays run was 3,036. The average number of assays per sample was 4.3. The average number of assays run per sample was 4.6. The total number of assays run was 2,821 and the average turnaround time for processing samples was 11 days.

There were challenges in the CAC due to staffing shortages. The CAC's fertilizer lab ran more assays despite fewer staff. The CAC has now filled the vacant positions.

The noted accomplishments were adding investigations of calcium sulfate dihydrate using X-ray diffraction (XRD) analysis technology, working with the fertilizer program on ExtraView lab report project, and evaluating newer methods for confirmation for mineral analysis for confirm sulfur products. The CAC was represented at the summer AAPFCO meetings. All staff attended the annual hazardous materials training.

There is a focus on the nucleus team to streamline all aspects of receiving samples, including storage, preparations, extraction, digestion, and record keeping into one team for the entire CAC. More staff is cross-training to help where and when needed. The Rapid Response Team is a new CAC initiative which assembles in emergency situations. The team analyzes samples within 24 hours to determine what toxins are present from someone's exposure to pesticides. It provides resources to Industry and science.

The budget for FY 2021/22 was revised. The differences included a 9.23 percent restoration in salaries. There was a reduction in expenditures in FY 2021/22 and 2022/23 due to not expending for lab benches. Distributed costs adjusted to closely reflect actual costs.

For FY 2021/22, personnel services were revised to \$1,000,518. Total operating expenses to \$185,395. CAC proposed equipment and supplies at \$275,000 and distributed costs at \$225,500. Total program costs for the revised FY 2021/22 budget is \$1,686,413.

For 2022/23, personnel services are estimated at \$1,026,158. Total operating expenses are \$185,395. Equipment and supplies are budgeted at \$225,000. Distributed costs are projected at \$225,500. The total projected FY 2022/23 budget is \$1,662,053.

The increase in the current year's equipment cost was for the Inductively Coupled Plasma (ICP) that was purchased.

The question was asked on how the Commercial Feed Program no longer using the CAC affected this budget. Khosravifard stated that due to retirements, there were no significant increases in the budget. Young noted that despite the challenges and anomalies, the CAC has maintained consistency and excellence.

### **PUBLIC COMMENTS**

There were no public comments.

### **AGENDA ITEMS FOR NEXT MEETING**

Chair McQueen requested an in-person meeting in February 2022 and a tour of the CAC. The FIAB also plans to rereview the FREP project for Liquid Nitrogen in Organic materials.

### **NEXT MEETING**

The next meeting will be on February 17, 2022. It may be a hybrid format, with the option of in-person/virtual

**MOTION:** Jake Evans moved to adjourn the meeting. Greg Cunningham seconded; the motion was approved unanimously by all members present with a vote of 7 to 0.

### **ADJOURNMENT**

The meeting was adjourned at 11:39 AM.

### **ORIGINAL SIGNED BY NICK YOUNG**

Nick Young,  
Environmental Program Manager I  
Fertilizing Materials Inspection Program

09/29/2021

**Date**