

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

**February 17, 2022
9:00 AM – 12:00 PM**

MINUTES

MEMBERS

Chris Gallo
David McEuen
Gary Silveria
Gus Olson
Greg Cunningham
Jake Evans
Melissa McQueen, Chair
Timothy Howard

MEMBERS ABSENT

Miguel Duarte

CDFA STAFF

Amadou Ba
Adriana Avalos
Angelia Johnson
Barzin Moradi
Brittnie Williams
Carla Sanchez
Elizabeth Moseby
Emad Jahanzad
Kris Gulliver
Maria Tenorio Alfred
Mark Cady
Maryam Khosravifard
Nick Young
Nicole Nunes
Nicole Smith
Stacy Aylesworth

INTERESTED PARTIES

Renee Pinel
Steve Spangler

INTRODUCTIONS AND ANNOUNCEMENTS

Melissa McQueen, Chair, called the meeting to order at 9:10 AM. Dr. Amadou Ba announced the Division's new office location at 2399 Gateway Oaks Drive, Suite 200, in Sacramento.

ROLL CALL

Self-introductions were made, and a quorum was established. Dr. Miguel Duarte was absent.

APPROVE SEPTEMBER 29, 2021, MEETING MINUTES

Chair McQueen requested the board review the minutes from the September 29, 2021, FIAB meeting.

MOTION: Tim Howard moved to approve the September 29, 2021, minutes as presented; Greg Cunningham seconded. The motion passed unanimously by all board members present with a vote of 8 to 0.

DEPARTMENT / DIVISION / BRANCH UPDATES

Dr. Ba provided the Department, Division, and Branch updates. At the last meeting, the board asked that the Department seek advice from the Department's Legal Office regarding board terms, specifically changing the term expiration dates from October to December. With the current structure, the final yearly meeting has to be before October 14 to discuss term appointments, and then the first meeting of the next year does not usually occur until mid-February. This often results in board members not serving a full three-year term, as well as makes it difficult on program staff to schedule the meetings. Legal Office advised that the board terms for current filled positions cannot be extended because the law only allows for a three-year term. However, when a board position becomes vacant in October, the program will not fill the position until January; therefore, as terms expire, they are able to be realigned to terms of January – December. The newly appointed member, Gus Olson, and reappointed members Jake Evans and Greg Cunningham's board terms have begun January 1, 2022, and will end December 31, 2024. A Department-wide legal analysis on board tenure is ongoing.

The Fertilizer Research and Education Program (FREP) leveraged the \$3 million approved by the FIAB on September 29, 2021, to apply for additional federal funding. Department Secretary Karen Ross was complimentary to the FIAB's leadership on the approval of federal funds.

The Commercial Feed Regulatory Program continues its Cooperative Agreement (CA) with the Food and Drug Administration to implement the Food Safety Modernization Act. The CA includes 11 program standards pertaining to animal feed safety; 10 of the 11 program standards passed an audit, with the lab program standard remaining. The new lab is working on obtaining International Organization for Standardization accreditation.

The Safe Animal Feed Education Program's hemp by-product project's purpose is to determine the viability of a lipid-extracted hemp residue as a potential animal feed. Efficacy data on by-products must be completed.

Dr. Ba announced the appointment of the Department's new Undersecretary Christine Birdsong, previous Senior Vice President, General Counsel and Director for the Sun Valley Rice Company since 2016. Virginia Jameson has been appointed Deputy Secretary for Climate and Working Lands; Jameson has been the Conservation Program Manager at the Department of Conservation since 2018.

The Department has been engaged in supply chain issues with rail yard shipment issues. There is \$2.3 billion to leverage \$17 billion in federal funding to update supply chain infrastructures to increase the flow of agricultural commodities.

Secretary Ross is participating in the United States Department of Agriculture's (USDA) Agricultural Trade Mission in Dubai. Secretary Ross joined USDA Foreign Agricultural Services Administrator Daniel Whitley to market California agricultural products.

Natalie Krout-Greenberg, Inspection Services' Division Director, and Undersecretary Birdsong are attending the National Association of State Departments of Agriculture's Winter Policy Conference to meet with federal partners, Senate and House of Representatives regarding Farm Bill 2023.

The Department's Office of Farm to Fork (F2F) is currently accepting public comments for the California Farm to School grant program's request for applications. The California Budget Act of 2021 includes \$60 million, in one-time General Fund dollars for F2F to sustain and expand the California Farm to School Incubator Grant program, with \$30 million for Fiscal Year (FY) 21/22 and the remaining for FY 22/23.

SUPPLY CHAIN PROBLEMS FACING CALIFORNIA FERTILIZER INDUSTRY

Steve Spangler, Vice President of Integrated Agribusiness Professionals, reported the impact on the fertilizer market due to supply chain challenges include international shipping and demand, energy shortages, trucking and logistic issues and anti-dumping rulings. The flow of ships are scheduled months in advance and when flow is disrupted it affects the flow of freight, increases cost of freight (cost of containers), price of bulk and liquid products, and change in shipping times. Bottlenecks cost millions in increased costs impacting the imports of specialty fertilizers, which also affects the cost of dry and liquid products. Container rates have skyrocketed from \$2,000 - \$3,000 to \$15,000 - \$18,000. Specialty fertilizer shipped in containers that are higher in price limits the imports into the state. It also affects bulk of urea shipments and the cost of liquid shipments to California.

Energy costs, including gas prices, have spiked in the European Union (EU) from \$5 to \$25 - 30 Metric Million British Thermal Unit (MMBtu) which has majorly impacted nitrogen fertilizers costs. China stopped exports until June 2022; Russia has limited exports to control fertilizer pricing; and imports are down from the EU due to an increased cost of fuel for transport, decreased supply of sulfur used in fertilizer manufactures (elemental sulfur, ammonium sulfate) and an increased cost of natural gas prices in the United States.

Spangler reported trucking shortages and regulations impacting the trucking industry have put small carriers out of business. Owner operators are retiring making it difficult to recruit younger drivers into the workforce, and the lack of capacity have truckers focusing on favorable routes.

Antidumping ruling duties on Morocco and Russia ranging from 20 - 72% eliminated competitors from the marketplace for phosphates and tightened supply. A tremendous increase in phosphate fertilizers heightened by the phosphate market globally is relatively tight today. Urea Ammonium Nitrate (UAN) for California is severely impacted due to heavy reliance on imports resulting in a potential shortage of 150,000 – 200,000 tons.

Spangler concluded that incoming fertilizers in packaged containers will be heavily impacted beyond this season. Spangler anticipates seasonal logistical shortages

foreseeing challenges in the trucking industry and UAN supply will be a potential issue for California. The normal flow of shipping will be strictly disrupted with receiving UAN from different sources, times and supply points which will be a challenge for industry to navigate through.

FUND CONDITION / MILL ASSESSMENT

Nick Young reported the Fertilizing Materials Inspection Program's (FMIP) beginning fund condition balance for FY 21/22 was \$10,978,628. Revenue was \$2,866,486. Expenditures were \$2,354,588 and encumbrances were \$46,880. The adjusted ending balance for FMIP was \$11,443,646. The Organic Input Material (OIM) Program had a beginning balance of \$3,022,078. Revenue was \$1,077,796. Expenditures were \$423,653 and encumbrances were \$431,439. The adjusted ending balance for OIM was \$3,244,782. The combined beginning balance for both programs was \$14,000,706. Revenue was \$3,944,282. Expenditures of \$2,778,241 and encumbrances of \$478,319. The adjusted combined balance for both programs was \$14,688,428.

FREP's beginning balance was \$7,134,043. Revenue was \$2,057,802. Expenditures were \$868,546 and contractual encumbrances through June 30, 2022, were \$3,005,512. The ending balance for FREP was \$5,317,787. The University of California Agriculture and Natural Resources (UCANR) contract approved at the July 1, 2021, FIAB meeting, was not included in the fund condition report presented due to the funds not yet encumbered since this fund condition is only through November 2021.

Young presented the mill assessment trends, highlighting the mill assessment fee reduction to 2.5 brought a total of mill assessment revenue of \$8.6 million for FY 20/21. Young noted that the mill revenue appears higher in July and August of FY 21/22 and the program will continue to monitor the mill assessment revenue trends.

Chair McQueen stated the board may make a recommendation to adjust the mill assessment as necessary considering a discussion regarding the reduction of applications where cost per unit is higher but looking at lower volumes.

Jake Evans requested the board consider reducing the mill to 1.5 or 2 mills. Vice Chair Gary Silveria agreed to review the mill at a later date.

Timothy Howard agreed, suggesting the program provide data on prior years when the mill assessment rate was at 1.5 and 2 mills.

Chair McQueen requested the FMIP provide various projections of 1.5 and 2 mills based on historic tons at the next FIAB meeting.

PROGRAM UPDATES

Dr. Martin Burger presented registration updates, noting that the slides were current as of December 31, 2021. There were 8,339 approved conventional labels and 2,362 approved OIM labels. As of December 31, 2021, there were 10,031 active conventional

labels and 3,346 active OIM labels. The current data, in comparison to the December 2020 data, shows an increase in active OIM labels.

Long term trends, from January 2018 through November 2021, continue to trend upward for total approvals of new applications for both conventional fertilizers and OIM. Dr. Burger reported the FMIP's registration staff is struggling to keep up with the applications. Staff have over 100 applications in queue ready to be reviewed.

Chair McQueen inquired about the duration of work queues to completion time. Dr. Burger responded stating completion time has improved and the statistics on staff's work queue times and amount of time it takes for approval will be provided at the next FIAB meeting.

Chair McQueen stated at the last meeting the board discussed bringing additional employees to the FMIP's registration team to assist with the application process. Young stated an option for the FMIP would be to hire two Environmental Scientists (ES) positions on 24-month limited term, with the potential to become permanent.

Cunningham recommended the FMIP hire two additional registration staff due to the increase in volume of applications. Dr. Burger stated it would be beneficial to have additional staff to relieve pressure from staff's workload and ensure staff maintain timely reviews. It takes about six months for a staff to become fully trained and productive in the processing of fertilizer registration applications.

MOTION: Greg Cunningham moved to approve the addition of two ES positions with 24-month limited term for the FMIP's registration team; Jake Evans seconded. The motion passed unanimously by all board members present with a vote of 8 to 0.

Dr. Burger gave an update on the 'Ammonia Extracts' as an OIM. On October 20, 2021, the National Organic Standards Board (NOSB) voted to classify ammonia extracts as non-synthetic, prohibit stripped ammonia, and prohibit liquid products with ammonium-nitrate greater than 3% and an ammonia content greater than 50% of total Nitrogen. The USDA's National Organic Program (USDA-NOP) will decide whether to follow the NOSB's recommendations, based on the rulemaking process set forth in the Organic Foods Production Act of 1990. The Department will continue to allow the distribution of approved OIM ammonia extract products and evaluate new applications of OIM ammonia extract products until USDA-NOP's ruling.

Chair McQueen reminded new board members that the FIAB's Technical Advisory Subcommittee (TASC) makes recommendation for research projects for funding by FREP. The FIAB's responsibility is to approve and vote on the TASC recommendations. TASC recommended this project last quarter, but the FIAB did not approve funding at the time due to the unknown of ammonia extract possibly considered as an OIM. Chair McQueen requested a board recommendation to approve this project for FREP.

Evans stated the project appears to be about 20-25% of FREP's annual budget, for a potential product that may be very limited in the marketplace. Evans recommended the TASC review and make a recommendation on whether the funding of the project is the best use of FREP dollars.

Dr. Burger stated the vote was put out to researchers as a topic of interest due to a variety of public comments that were in support of and opposed. Several discussions have occurred surrounding the outcome of applying the product to soil and potential adverse environmental impacts to determine if ammonia extract (AE) is beneficial or detrimental to soil.

Discussion ensued regarding the NOSB vote to classify ammonia extracts as an OIM.

Dr. Ba suggested that the FIAB table the discussion until the FMIP receives clarification from USDA-NOP's potential rulemaking on allowing or not allowing AE because the program will be bound to NOP's final decision.

MOTION: Gary Silveria moved to approve tabling the discussion until the FMIP and FIAB receive further information from USDA-NOP; Greg Cunningham seconded. The motion passed unanimously by all board members present with a vote of 8 to 0.

Young presented a 2021 sampling summary, reporting 1,100 total samples: 653 conventional and 447 OIM with an estimated 12.6% violation rate of sampled products. FMIP received 52 formal complaints (23 conventional and 29 OIM); 95% were label claims or product registration related. All were investigated and resolved. Notices of Proposed Actions received in 2021 totaled to \$83,258.22; nine additional cases are currently under review for 2022.

Young announced that Nicole Smith, FMIP's newly appointed Senior Environmental Scientist (SES) (Supervisory), will oversee the FMIP's field staff. Smith has been involved in the field activities for over eight years, and has a bachelor's degree in Agricultural Sciences from Oregon State University. Danny Parks, Special Investigator, retired on January 7, 2022. Minal Patel, ES Lab Coordinator, will train and assume responsibility for Parks' Northern California territory.

Young attended the Association of American Plant Food Control Officials (AAPFCO) conference in Mobile, Alabama on February 14-16, 2022. Kris Gulliver, FMIP's SES (Specialist), who was named as co-chair for the Slow-Release Fertilizer Committee, lead the meeting due to the absence of the other co-chair, Solomon Kariuki. Young will provide biostimulant committee updates at the next FIAB meeting. The biostimulant committee's most notable update is the development of a label registration format that is relatively easy, simpler, and universal across the US for both industry and control officials. AAPFCO's guidelines, including a guidance document for standardization between states for biostimulants or nutrients, can be used for efficacy data. The definition and model bill have tentatively passed. The fertilizer industry and control

officials continue to work on the framework of identifying biostimulants and legislation that affects biostimulants.

AAPFCO sent a letter of thanks to the FIAB for providing support toward funding for the slow-release fertilizer study, the 15% rule. The study is still in the works and a lot of data was reviewed.

Gulliver presented an update on the slow-release fertilizer research, stating Solomon Kariuki of the Slow-Release Fertilizer Committee has been narrowing the relevant information about slow-release fertilizer from compiling journal articles – it is still an ongoing process. The goal of the research is to provide a report to the advisors of the Slow-Release Fertilizer Committee in determining if the 15% is adequate, insufficient, or if there is a different number that would be better appropriate.

Mark Cady reported FREP received 13 concept proposals as of January 28, 2022. The TASC meeting in March 2022 will determine which of the concept proposals will progress to full proposals. The Nitrogen and Irrigation Management Outreach Initiative \$3 million grant funding, approved by the FIAB in July of 2021, was used by FREP to leverage additional funding from the Conservation Innovation Grant from USDA's Natural Resources Conservation Service. The University of California, Davis (UCD) and UCANR will receive subawards to complete this project.

The Specialty Crop Block Grant that was approved by USDA for \$750,000 will extend the FREP projects approved by the FIAB last summer. FREP has met with UCANR, UCD and coalition groups focusing on data.

Nicole Nunes reported in 2021 FREP took over the Irrigation and Nitrogen Management training program, a program that allows growers to self-certify their Irrigation and Nitrogen Management worksheets required for Central Valley and Ventura County as part of the Irrigated Lands Regulatory Program. Growers complete an initial four-hour training program on how to complete the worksheet and self-certify, which also includes background information on irrigation and nitrogen management practices. Growers who pass the four-hour training to self-certify worksheets for their farms are then required to further completing continuing education units.

Nunes reported FREP has held eight online trainings via GoTo platform with over 600 growers in attendance. In cooperation with the water quality coalitions in the Central Valley, the UC Cooperative Extension approved and held over 52 continuing education courses which offered a total of 76 plus hours of education focused on irrigation and nitrogen management practices. FREP will continue with the online training for the foreseeable future.

FREP is forming an ad hoc committee with the Regional Water Quality Control Board, water quality coalitions and UC Cooperative Extension. The purpose of the committee is to redesign training curriculum and learning processes to ensure FREP does their part in the education and training as the nitrogen management regulations become more

stringent. FREP will be getting new trainers and curriculum this year, and a self-study option may be available for growers that are unable to attend a live or in-person training.

CENTER FOR ANALYTICAL CHEMISTRY (CAC) LAB UPDATE

Maryam Khosravifard presented the CAC Lab update, reporting a total of 1,473 assays completed with an average turnaround time of eight days from September 1 through December 31, 2021. CAC received a total of 1,135 samples between January 1 to December 31, 2021: 70 rush samples and 122 priority samples. The average number of assays per sample remains the same, at about 4.6. The total number of assays run was 5,265.

CAC maintained the average turnaround time of below 10 days for 2021, despite the COVID-related disruptions and staff shortages. Khosravifard reported an Agricultural Biotechnician was hired in September 2021 and external hard drives were installed to back up instrument data. CAC has been working with the FMIP on an ExtraView database project that will simplify lab reporting and the ability to track varying samples and assays. An inductively coupled plasma - optical emission spectrometry was purchased and is ready for installation. Khosravifard reported that CAC staff participated in AAPFCO's Methods Forum for fertilizer analysis. CAC presented its new method for analysis using ion chromatography technology. CAC is the first state to apply this technology in phosphate and phosphite fertilizer analysis, which brings new opportunity and potential to the lab.

Young thanked CAC for its great partnership with the FMIP in overcoming many challenges and addressing issues promptly, highlighting CAC's outstanding sample turnaround time. Chair McQueen emphasized all that CAC has accomplished with staffing shortages.

PUBLIC COMMENTS

There were no public comments.

AGENDA ITEMS FOR NEXT MEETING

Chair McQueen stated the FMIP will provide mill assessment scenarios for 1.5 and 2 mills.

Chair McQueen noted the importance of full attendance while serving on the FIAB.

Dr. Ba stated the FIAB can make a recommendation to the Secretary to consider replacement of an inactive board member. It is FMIP's responsibility to advertise a vacancy on the board for the application process to take place and present the applicant pool to the secretary for approval of an individual to fill the remaining term.

Evans requested to revisit board tenure and board member absence.

MOTION: Tim Howard moved to approve the replacement of Dr. Miguel Duarte; Gary Silveria seconded. The motion passed unanimously by all board members present with a vote of 8 to 0.

NEXT MEETING

Chair McQueen requested an in-person meeting followed by a tour of the CAC. The next meeting will be on June 21, 2022, with a potential to be in hybrid format. Dr. Ba commented stating the option of in-person/virtual is unknown.

MOTION: Jake Evans moved to adjourn the meeting. Greg Cunningham seconded; the motion was approved unanimously by all members present with a vote of 8 to 0.

ADJOURNMENT

The meeting was adjourned at 11:46 AM.

ORIGINAL SIGNED BY NICK YOUNG

Nick Young,
Environmental Program Manager I
Fertilizing Materials Inspection Program

02/17/2022

Date