

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

**June 21, 2022  
9:00 AM – 12:00 PM**

**MINUTES**

**MEMBERS**

Chris Gallo  
David McEuen  
Gary Silveria  
Greg Cunningham  
Gus Olson  
Timothy Howard

**MEMBERS ABSENT**

Jake Evans  
Melissa McQueen

**CDFA STAFF**

Aaro Lautamo  
Amadou Ba  
Ashley Boyden  
Ashwin Pal  
Baby Shaharoon  
Barzin Moradi  
Brittnie Williams  
Elizabeth Moseby  
Emad Jahanzad  
Evelyne Ndiaye  
Kristopher Gulliver  
Khashayar Ghazianzad  
Mabel Chuek  
Maria Tenorio Alfred  
Martin Burger  
Maryam Khosravifard  
Mehdi Ansari  
Minal Patel  
Nick Young  
Nicole Smith

**INTERESTED PARTIES**

Renee Pinel

**INTRODUCTIONS AND ANNOUNCEMENTS**

Gary Silveria, Vice Chair, called the meeting to order at 9:06 AM. Self-introductions were made, and a quorum was established.

Vice Chair Silveria announced the passing of Dr. Miguel Duarte on February 20, 2022, which was a major loss to the fertilizer industry. The Fertilizing Materials Inspection Program (FMIP) was notified of Dr. Duarte's passing by family who was appreciative of the FMIP's recognition for Dr. Duarte's time and service to the board.

**APPROVE FEBRUARY 17, 2022, MEETING MINUTES**

Vice Chair Silveria requested the board review the amended minutes from the February 17, 2022, FIAB meeting. Nick Young presented the amendments to the Center for

Analytical Chemistry's (CAC) update in the second paragraph on page 8 regarding its methods and the header correction.

**MOTION:** Timothy Howard moved to approve the amended February 17, 2022; minutes as presented; Gus Olson seconded. The motion passed unanimously by all board members present with a vote of 5 to 0. David McEuen was not present during this motion.

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

Dr. Amadou Ba announced that per Bagley Keene, the locations of members participating from a different site for the meeting must be noticed and made available for the public to attend, at least 10 days before the meeting date. Two upcoming board member positions and one public member position, including Dr. Duarte's former vacant position, expire on October 14, 2022. The individual appointed in replacement of Dr. Duarte's position will complete the remaining term until October 2022, with the potential to reapply after the term end date and become reappointed to fulfill the next full board term service of three years.

The Governor's Office (GO) budget passed the legislature on June 15, 2022. CDFA's operational items were addressed in the budget. Kari Morrow, Director of the Department's Administrative Services Division (ASD), retired. Jody Lusby is the newly appointed ASD Director. The Inspection Services Division's Office of Farm to Fork program's expansion included \$30 million in the GO budget. The Department is engaged with various stakeholders, ranchers and farmers impacted by drought related issues. The plan for drought conditions has doubled from past years. Industry is working towards water efficiency, including almond users and dairy farmers attempting the reduction of water use.

The fertilizer industry continues to be impacted by supply chain challenges and issues. The Department's Executive Office met with various stakeholders including Yara, Vice Chair Silveria and Steve Spangler, Vice President of Integrated Agribusiness Professionals. The purpose of the meeting was to provide more information and updates on California's fertilizer supply chain issues.

Existing feed grain supply chain issues in California forced some feed licensees to depopulate due to a corn supply shortage. The Surface Transportation Board (STB) held a hearing on urgent issues in freight rail service. The Fertilizer Institute, the National Grain and Feed Association and the Farm Bureau provided testimonies on the shortcomings of rail service negative impact to the cost and timely delivery of grains and fertilizer inputs to ranchers and farmers. The Department's Undersecretary Christine Birdsong is in contact with the United States Department of Agriculture (USDA) and STB to present California issues.

Timothy Howard asked if bulk vessel unloading was also being discussed, specifically in the Port of Stockton. Dr. Ba stated the issue was briefly discussed, but for now neither the feed grain issue nor the fertilizer issue met the definition of an 'emergency' but

requested a member of the FIAB volunteer to keep the Branch apprised of ongoing issues and concerns and for a report to educate the Department's Executive Office on this matter. Member Chris Gallo volunteered to provide a report and be the contact for this issue.

Gallo further stated that the Port of Stockton is severely impacted for California agriculture; in the last two to three months, the congestion of vessel traffic of bulk fertilizers has been majorly delayed due to labor. Suppliers are incurring several weeks and several hundreds of thousands of dollars in additional costs. These issues are also partly due to issues with union labor issues and dock workers.

David McEuen arrived 9:26 AM.

### **FUND CONDITION / MILL ASSESSMENT REVIEW / TONNAGE REPORTING**

Young reported the FMIP's beginning fund condition balance for fiscal year (FY) 2021/22 was \$10,978,628. Revenue was \$3,573,786. Expenditures were \$4,310,208 and encumbrances were \$384,136. The adjusted ending balance for FMIP was \$9,858,070. The Organic Input Material (OIM) Program had a beginning balance of \$3,022,078. Revenue was \$1,750,931. Expenditures were \$823,938 and encumbrances were \$356,748. The adjusted ending balance for OIM was \$3,592,323. The combined beginning balance for both programs was \$14,000,706. Revenue was \$5,324,717. Expenditures of \$5,134,146 and encumbrances of \$740,884. The adjusted combined balance for both programs was \$13,450,393. The combined adjusted ending balance for both the FMIP and OIM programs shows a decrease in comparison from the beginning balance of \$14,000,706 reported as of March 31, 2022, due to the reduction of the fertilizer mill assessment.

The Fertilizer Research and Education Program's (FREP) beginning balance was \$7,134,043. Revenue was \$2,874,683. Expenditures were \$1,740,398 and contractual encumbrances through June 30, 2022, were \$2,279,893. The adjusted ending balance for FREP was \$5,988,435.

Young presented the mill assessment trends, reporting the highlighted areas in orange reflect the mill reduction split from 3 to 2.5 mill rate for FY 2020/21. The mill assessment fee reduction to 2.5 mill rate brought a total mill assessment revenue of \$7.2 million for FY 2021/22. Revenue will trend downward due to the mill assessment reduction.

At the last FIAB meeting, the board requested FMIP provide various revenue projections of different mill rates. Young presented potential scenarios of mill assessment projections beginning with FMIP's current 1.5 mill rate. The revenue projection with a 1.5 mill rate for FY 2021/22 is \$13.1 million. A gradual decline under the current 1.5 mill rate reduction for FY 2022/23 is projected at \$12.6 million until FY 2027/28 projected at \$5.0 million. Reserves must remain at 50% of the program's budget.

The revenue projection with 1 mill rate for FY 2024/25 is \$7.3 million and FY 2025/26 is \$4.1 million, below 50% of program reserves. Maintaining 50% of program reserves is estimated to be \$4.4 million. Proposed rulemaking must be prepared the year prior to changing the mill rate. With a reduction of one half of a mill, the program would have to enact rulemaking again in two years to increase the mill rate and program reserves.

A reduction to 0.5 mill rate becomes challenging due to the urgency of proposed rulemaking to begin immediately to avoid a deficit. Reduction to 0.5 mill rate is swift until FY 2023/24 where program's reserves hit below 50% of the reserve.

The revenue projection for FREP at 1 mill rate for FY 2021/22 is \$6.2 million. Reduction by 0.5 mill for FREP would prompt rulemaking before impacting the FREP's reserves. The revenue projection for FREP at 0.5 mill rate for FY 2022/23 is \$3.9 million with a major reduction for FY 2023/24 of projected revenue at \$2.3 million, with a deficit every year after.

Gallo inquired if revenue projection is based on historical increase on tonnage trends. Young, stated revenue projection are based on existing numbers and do not project the direction of market sales.

Dr. Ba stated a sunset date may be put in place which will allow for the proposed mill rate to take effect now and automatically revert to the existing rate at the termination of sunset date; there is also a Government Code that can be put into legislation which would allow an exemption from having to go through the regulatory process for mill rate changes. The FMIP is amendable to board recommendation to increase or decrease the mill rate.

Vice Chair Silveria requested the board make a motion to recommend an appropriate mill rate based on review of the mill assessment data projections presented by FMIP.

**MOTION:** David McEuen moved to approve the continuance of the 1.5 mill rate; Timothy Howard seconded. The motion passed unanimously by all board members present with a vote of 6 to 0.

Howard requested an annual board review of mill assessment rates.

Kristopher Gulliver, FMIP's Senior Environmental Scientist (SES) (Specialist), reported general tonnage trends from 2017-2021. Nitrogen tonnage data appears to be at a slight upward trend; phosphoric acid and potash tonnage fluctuates with a steady trend; and sewage sludge tonnage data appears steady. Some tonnage commodities in 2021 were lower than previous years, including gypsum. Gulliver reported that he is currently reviewing the tonnage reporting data to identify discrepancies.

### **BOARD VACANCY**

Vice Chair Silveria requested the board review the four candidates to recommend to the secretary for the one board member position's remaining term of service, until October 14, 2022.

Discussion ensued regarding the four applicants.

**MOTION:** Timothy Howard moved to approve board recommendation of William Oglesby to the secretary to complete the remaining term of service until October 14, 2022; Chris Gallo seconded. The motion passed unanimously by all board members present with a vote of 6 to 0.

- A break was taken from 10:15 AM to 10:20 AM.

### **PROGRAM UPDATES**

Young presented the Federal Bill (H.R. 7752) which amends the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), provides a "plant biostimulant" definition, defines "nutritional chemical", and exempts plant biostimulants and nutritional chemicals from FIFRA. The bill also calls for a USDA Soil Health Study.

The Association of American Plant Food Control Officials (AAPFCO) Biostimulant Committee is in development of a plant biostimulant definition, revisions of beneficial substances definition, efficacy data guidelines, model bill for states, and lab methods through the Lab Services Committee for new and emerging biostimulant ingredients.

AAPFCO's biostimulant definition is voted to "tentative" status before the vote to official. Existing definition for beneficial substance is re-opened to tentative status with minor revisions. Efficacy data guidelines were voted on and the status changed to official. The substantiation of product efficacy claims shall be done in one of three ways: association with relevant published literature, research test results using scientifically recognized principles and methods and a combination of research test results with relevant published literature.

AAPFCO's model bills serve as boilerplate language that state legislatures may implement to ensure standardization and uniformity. The scope defines the authority and parameters and represents types of plant biostimulant ingredients or groupings. Scope becomes problematic because many materials are not validated or categorized as a fertilizer or soil amendments. Young presented an example of a universal 50-State label, reporting nonplant food ingredients, beneficial substances, soil amending ingredients, etc., which cause confusion from varying label sub-heading requirements. Product brand name must identify and list all beneficial substances including the percentage and genus and species of microorganism. Other components on labeling include purpose statement, directions for use, name and address of guarantor, registrant, and/or manufacturer, net weight/volume.

The AAPFCO Summer Annual Conference is August 1 - 2, 2022 in St. Louis, Missouri. Topics will include plant biostimulant legislative model bill and label formatting, uniformity in fertilizer labeling, terms and definitions, and discussion on Slow-Release Fertilizer labeling and methodology.

Young provided AAPFCO 15% slow-release study updates. Dr. Gurpreet Kaur presented to AAPFCO Board of Directors in April 2022. The study will likely conclude by end of summer. Over 400 relevant research articles were reviewed with the potential of publishing two journal articles for nitrogen and other slower release nutrients.

Young reported that attorney general action on a complaint of "Agro Gold WS" by Agro Research International located in Florida. Agro Research International registered an OIM product as a "biological amendment" containing a beneficial microbe. FMIP's field staff sampled and analyzed 16 unique lots; lab results demonstrated adulteration with Diquat and Glyphosate. On December 4, 2020, the FMIP and State Organic Program issued a Statewide Quarantine Order and Stop Use Order of Agro Gold WS. On May 20, 2022, the Department issued an enforcement action against Agro Research International. A press release will be issued within the month. Investigation is ongoing.

Nicole Smith, FMIP's SES (Supervisory), introduced Minal Patel, Environmental Scientist (ES), lab coordinator responsible for generating lab reports and processing split samples. Patel is currently taking over field work in northern California. FMIP recruitment for an Agricultural Technician II position is ongoing to assist with the lab coordinator duties. Recruitment for an ES to backfill Smith's prior position in southern California is advertised. FMIP hopes to fill the position within a couple of months.

As of May 2022, FMIP received 10 complaints; four were resolved and six are outstanding. FMIP took 418 samples; the program is on pace with the yearly average of 1,200 samples.

Dr. Martin Burger reported FMIP received 3,363 OIM and 9,986 conventional fertilizer label registrations; 2,051 OIM registrations and 8,543 conventional fertilizer registrations were approved. Long term trends, from July 2018 through March 2022, continue an upward for total approvals and new applications received for OIM and conventional fertilizer.

The number of renewals and applications completed when telework took effect from March 2020 through 2022 displays a slight decrease in the number of new applications for conventional fertilizer and OIM.

Dr. Burger presented a table illustrating three years of data for trends of new OIM and conventional fertilizer registrations and renewals approved within 30-60-90-120 days. Incomplete applications are the greatest factor for the registrations not completed in more than 120 days. New conventional fertilizer labels and renewals are steady.

Emad Jahanzad presented FREP updates. The FREP Technical Advisory Subcommittee (TASC) met in June 2022 to discuss and recommend projects to full proposal phase. Four of 13 were moved to full proposal phase; three of four were recommended by TASC.

- Proposal 1 by Ali Montazar, Michael Cahn and Daniel Geissler: Developing Tools and Information on Irrigation and Nitrogen Best Management Practices in California's Low Desert Lettuce Production Systems. The objective is to understand viability and applicability of current nitrogen and irrigation management practices in low desert lettuce production systems.
- Proposal 2 by Charlotte Decock and Michael Cahn: The Role of Irrigation Management for Improving Nitrogen Use Efficiency for Broccoli Grown with Nitrate-Contaminated Irrigation Water. A first proposal to study nitrogen and irrigation management for broccoli production.
- Proposal 3 by Marco Gebiola and Kerry Mauck: Black Soldier Fly Frass evaluation as a fertilizer and soil amendment for lettuce and cantaloupe. This proposal was rejected by TASC.
- Proposal 4 by Patrick Brown and Stavros Vougioukas: Development of Precision Yield Monitor for Almond and Pistachio. Study yield variations in almonds and pistachios at tree level using optical and gravimetric methods.

This year's lower number of submissions prompted a working group for FREP to complete a series of interviews and receive feedback from four different groups of 1) applicants who have been successful in receiving funding in the past five years, 2) applicants who have not been successful in receiving funding in the past five years, 3) organizations/individuals who have not applied in the past five years and 4) other grant programs which are similar to FREP in terms of funding priorities. Among different feedback received from interviewees, the most common one highlighted FREP's rather lower funding ceiling for a three-year grant (\$75,000 per year) compared to other similar programs (e.g. Specialty Crop Block Program with funding ceiling of \$450,000 for 2.5 years). FREP continues to address the lower number of submissions in hopes to increase submissions for the next year.

**MOTION:** Timothy Howard moved to approve the three full proposals recommended by TASC; Chris Gallo seconded. The motion passed unanimously by all board members present with a vote of 6 to 0.

FREP has received the executed USDA grant related to the Nitrogen and Irrigation Initiative. FREP is collaborating with University of California Davis (UCD) and University of California Agriculture and Natural Resources (UCANR) on staffing and training. UCANR hired three Staff Research Associates, one Academic Coordinator and advertised one Research Scientist. The Academic Coordinator collects and provides qualitative data to UCD professors who analyze the activities conducted, including workshops and outreach events, to determine the success of the project.

The Western Plant Health Association (WPHA)/FREP Nutrient Management Conference is October 26 - 27, 2022 in Visalia, California; a farm tour is scheduled on October 25. Topics including crop nitrogen removal coefficients, nitrogen management in wheat, irrigation and nitrogen management of onions and Asian vegetables, nitrogen management for cherries and walnuts, and in organic vegetable farms will be presented October 26 - 27.

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

Maryam Khosravifard reported assays completed for samples received from January through April 30, 2022. Khosravifard noted the table presented includes two parameters; rush samples and priority samples in the form of a matrix to evaluate the robustness of the lab's processes. CAC has optimized methodology based on measure of performance for rush samples and priority samples. Most assays were completed in less than 10 days. CAC completed a total of 1,389 assays with an average eight-day turnaround time.

CAC received 303 samples with a 97% completion: 91.1% of routine samples, 8.6% of priority samples and 0.3% of rush samples.

CAC also presented another performance metrics table for the number of rerun assays. to evaluate method performance. Reruns are performed for a variety of samples to confirm accuracy and by program request. CAC focuses on QC failure during rerun of assays and determines the cause of the failures. The total number of assays completed were 1,516 with a 5.2 average of assays completed per sample.

A new inductively coupled plasma (ICP) – optical emission spectrometry (OES) is installed and validated, and ICP-mass spectrometry will be delivered and installed. CAC received vendor training for the ICP-OES, Micro-Kjeldahl, IC and nitrogen analyzers. Data submission is underway for CAC's International Organization for Standardization 17025 to include IC (anions) and sulfur analyzer. CAC has been working with the Fertilizer program on the final stage of testing and implementation of ExtraView. A seven-year procurement process for the lab's bulk (6,000 gallon) nitrogen tank is in the installation phase. Numerous instruments rely heavily on nitrogen; the tank will supply nitrogen needs for the entire lab.

### **PUBLIC COMMENT**

Renee Pinel, President/CEO of WPHA, reported WPHA has been working with small group organizations on issues related to drought relief for small agricultural businesses including retailers, applicators, and irrigation specialists. WPHA brought concepts to the Department's Executive Office. The Department's Undersecretary Birdsong was helpful in setting up meetings with the Department of Finance and WPHA successfully obtained a \$75 million grant through the state approved budget. WPHA will work with the legislature in overseeing the grant program along with working through specifics with the Department.

**AGENDA ITEMS FOR FUTURE MEETINGS**

Dr. Ba announced that a fertilizer licensee detected salmonella in OIM home and garden products and reported the findings to the Department. The licensee has accepted an invitation to share information and data with the FIAB at the next meeting to raise awareness of food safety issues in the home and garden market and may potentially request FMIP to obtain samples.

**NEXT MEETING**

The next FIAB meeting will be on Tuesday, September 13, 2022.

**MOTION:** Timothy Howard moved to adjourn the meeting; Chris Gallo seconded. The motion was approved unanimously by all members present with a vote of 6 to 0.

**ADJOURNMENT**

Meeting adjourned at 12:04 PM.

**WORKING LUNCH**

12:04 – 1:00 PM

**CAC LAB TOUR**

1:00 – 4:00 p.m.

**ORIGINAL SIGNED BY NICK YOUNG**

Nick Young,  
Environmental Program Manager I  
Fertilizing Materials Inspection Program

06/21/2022

**Date**