CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE (Department)
FERTILIZER INSPECTION ADVISORY BOARD (FIAB)
DOUBLETREE BY HILTON / HYBRID

February 7, 2023
9:00 AM – 12:00 PM

MINUTES

MEMBERS	CDFA STAFF	INTERESTED PARTIES
Chris Gallo	Amadou Ba	John Bailey
David McEuen	Angelia Johnson	John Harrison
Gary Silveria	Barzin Moradi	Justin Comages
Greg Cunningham	Brittnie Williams	Michele Jay-Russell
Gus Olson	Dale Rice	Mike Menes
Jake Evans	Elizabeth Moseby	Renee Pinel
Melissa McQueen	Kim Schneider	
Timothy Howard	Kristopher Gulliver	
William Oglesby	Leo Campos	
	Maria Tenorio Alfred	
	Mark Cady	
	Martin Burger	
	Maryam Khosravifard	
	Mia Humphreys	
	Natalie Krout-Greenberg	
	Nick Young	
	Nicole Smith	
	Stacy Aylesworth	
	Suzanne Turcotte	

INTRODUCTIONS AND ANNOUNCEMENTS

Melissa McQueen, Chair, called the meeting to order at 9:02 AM and self-introductions were made.

Chair McQueen welcomed reappointed board members Chris Gallo, David McEuen and William Oglesby.

Dr. Amadou Ba reminded the FIAB the annual Form 700 must be completed in a timely manner. Currently, the Bagley-Keene Open Meeting Act allows for hybrid meetings, in-person and remote meeting attendance; however, the law sunsets on July 1, 2023.

ROLL CALL – ESTABLISH QUORUM

Roll was taken and a quorum was established.

APPROVE SEPTEMBER 13, 2022, MEETING MINUTES

Chair McQueen requested the board review the minutes from the September 13, 2022, FIAB meeting.

Discussion ensued regarding the meeting minutes.

MOTION: Jake Evans moved to approve the minutes as presented; Chris Gallo seconded. The motion passed unanimously by all board members present with a vote of 9 to 0.

DEPARTMENT / DIVISION / BRANCH UPDATES

Dr. Ba provided Feed, Fertilizer, and Livestock Drugs Regulatory Services (FFLDRS) Branch updates, reporting that the majority of positions have been filled, except for temporary positions. Dr. Ba informed the FIAB that FFLDRS Branch Budget Analyst, Adriana Avalos, recently promoted to a Staff Services Manager I position with the Office of Farm to Fork. Karen Adler was hired as a Senior Environmental Scientist (SES) (Specialist) for the Fertilizer Research and Education Program (FREP). Adler previously was employed by the Contra Costa County Department of Agriculture. Chi Banh, Gabriela Carreras and Gabriel Ortiz were hired as Environmental Scientists (ES) for the Fertilizing Materials Inspection Program (FMIP) and will work with registration staff for review of product registration. Mia Humphreys was also hired with the FMIP, and will work with field staff for the Southern California region.

The Department conducted a survey to identify damage as a result of the recent flood and rain and is engaged with County Agricultural Commissioner's due to a state of emergency for some regions of the state. Supply chain issues impacted the Feed Program due to rail issues, specifically poultry. The California Grain and Feed Association's (CGFA) advocacy group for the feed industry informed the Department's Undersecretary Christine Birdsong of the impact on poultry farms. This issue has been resolved. Undersecretary Birdsong was involved in a long-term workgroup pertaining to sustainable pest management with the Department of Pesticide Regulation (DPR), the Department, academia, farmers, ranchers, and urban end users. A general agreement was made resulting in a publication that prevents pests from establishing themselves in California. The Department and DPR continue to mitigate those issues of incoming pests.

The Governor's 2023 budget was released on January 10, 2023, with a $25 billion shortfall. A revised budget will roll out in May. The Department's Farm to School Program, Senior Farmers' Market Nutrition Program, Water Efficiency Technical Assistance Program, Livestock Methane Reduction and Enteric Methane programs were not impacted by the Governor's budget.

The State of the Science Summit will be held on May 2-3, 2023 at the University of California, Davis (UCD). The Summit's focus is on enteric methane reduction in livestock feed. Many entities are engaged in the process, including the Food and Drug Administration (FDA). Discussion on research and ways to address enteric methane claim will occur.

Dr. Ba reported that the legislative concept proposal regarding mill assessment rate changes was sent to the legislature based on findings and recommendations from FIAB.

Vice Chair Gary Silveria asked about the content provided by the Department for statewide Sustainable Pest Management. Dr. Ba stated Undersecretary Birdsong has been involved in that conversation and the focus is on prevention.

Renee Pinel, Western Plant Health Association, added that it was a holistic conversation and everyone had an opportunity to voice their concerns.

FUND CONDITION / MILL ASSESSMENT

Nick Young reported FMIP's beginning fund condition balance as of July 1, 2022, for Fiscal Year (FY) 2022/23 for Commercial Fertilizer was $10,287,207 and Organic Input Materials (OIM) was $3,873,120. Revenue for Commercial Fertilizer was $2,790,482 and expenditures were $2,727,164, with $166,400 in encumbrances. Revenue for OIM was $848,051 and expenditures were $422,906, with $641,292 in encumbrances. The adjusted ending balance for Commercial Fertilizer was $10,184,126 and $3,656,973 million for OIM, for a total combined adjusted balance of $13,841,098.

FREP's beginning balance as of July 1, 2022 was $7,937,382; revenue was $2,262,269, and expenditures were $772,925, with $3,632,897 in encumbrances through June 30, 2023. FREP's total ending balance as of November 30, 2022, for a total adjusted balance of $5,793,829.

Young presented the mill assessment trends, reporting $4.9 million through November 2022 at a 2.5 mill rate for FY 2022/23. With fertilizer prices going down, the next FIAB meeting may reflect similar mill assessment numbers reported of $9.0 million from last year.

PROGRAM UPDATES

Young explained the Pathogen Pilot Survey proposal, which requires the FIAB's approval. The proposal is designed to survey organic fertilizer products in California for *Salmonella sp*. The United States Department of Agriculture's National Organic Program's (USDA NOP) only standard for pathogens in fertilizer is 3 Most Probable Number (MPN) per 4-gram sample. The intent of this survey is to determine if there may be a potential issue with fertilizer products in the channels of trade and may help determine whether additional standards need to be developed and/or long-term sampling and monitoring should be implemented. FMIP would examine approximately 400 fertilizer products labeled as containing one or more of the identified ingredient sources, liquid/dry products/packaged and bulk, specialty (home and garden) and

commercial (ag or commercial use) and OIM and conventional materials. Bulk sampling will follow FMIP's sterile sampling guidelines and packaged products will be submitted in an unopen package. The samples will undergo initial "present/absent" screening and presumptive positive samples will have qualitative analysis performed by UCD's Western Center for Food Safety Lab. The estimated costs are approximately $25,000 for 400 samples. An additional 10-25% overhead cost may be required if a new contract with UCD is required. FMIP estimates an additional cost of $8,000 for sampling equipment supplies and cost of physical samples obtained at a retail level. The grand total for this pilot survey is approximately $40,000. The length of the sampling survey is 12 months, averaging 30-35 samples submitted for analysis each month. FMIP will provide updates at each FIAB meeting until the sampling survey is concluded and a final report is issued.

Greg Cunningham voiced support of the survey with the only concern being testing nonorganic OIM which seems to be out of the scope of the proposal. Young stated the FMIP is open to guidance and direction from FIAB to revise the scope as needed. USDA NOP's pathogen guidance is limited to processed animal manures. FMIP believes the importance of evaluation if other organic ingredient sources may serve as potential risk. In this proposal, FMIP intends to analyze organic fertilizer products that are labeled to contain processed animal manures (i.e., poultry manure, bovine manure, bat guano, seabird guano, etc.), beneficial microbes, meals (bone meal, fish bone meal, fish meal, shrimp meal, blood meal, alfalfa meal, kelp meal, feather meal, cottonseed meal, etc.), carbohydrates, and biosolids.

Jake Evans thanked the FMIP for the effort in preparing this sampling survey, clarifying to the FIAB it is a survey to protect human health versus stop sale. Young stated FMIP has authority to quarantine if it was processed animal manure above 3 MPN per 4-grams due to NOP standards.

Dr. Ba stated that the FMIP is looking at the sampling survey at a broad level with the key focus being safety. FMIP simply looks at the science-based data presented and identifies ingredients that are problematic and of concern with microbial growth. The survey is focused as a pilot project, not a compliance project. However, specific issues identified may call for regulatory compliance action.

Young added that the sampling can be absorbed without additional personnel costs.

Timothy Howard asked FMIP who makes the determination of the threshold for what is and is not safe. Young responded, stating in hopes that the evaluation of data and determination of it exceeding existing standards would be self-evident but might not which would then lead to more discussion with FIAB and FMIP about the handling of certain ingredients.

Gallo inquired about the connection between the sampling survey with USDA's standard of pathogens, stating this could potentially be proposed as a new standard. Young stated it could be proposed as a new standard if there are issues.

Dr. Martin Burger stated FMIP would consult with expert opinion. FMIP worked with FDA specialists who determined a couple of compost samples detected low in pathogens during a previous pilot project. A new standard for NOP must go through the National Organic Standards Board.

Cunningham questioned if a positive salmonella test would require a qualitative analysis aside from a standard quantitative analysis.

Michele Jay-Russell, Program Manager for UCD's Western Center for Food Safety, stated there are two species of salmonella: salmonella typhi from humans and salmonella enterica from animals or the environment. There are multiple serotypes within that group - all of which are considered human pathogens. The levels of salmonella that are infectious in humans are higher, such as E.coli O157 where there is value in quantifying salmonella. Jay-Russell stated uncertainty if a qualitative analysis is needed for FMIP's sampling survey. The advantage of this survey is the detection of salmonella and the amount. A very low detection of pathogens in the compost sample mentioned earlier by Dr. Burger is not as relevant to a million cells per gram heavy contamination concern of the ingredients, processing, or post processing contamination. UCD developed a rule with the FDA related to sub part F produce safety rule to look at standards for untreated biological soil amendments different from NOP. FDA is doing research in this area.

Gallo requested the findings and outcome of the compost sampling program from a regulatory standpoint. Dr. Burger responded, stating two out of the 70 compost samples detected pathogens; 40% were above standard in fecal coliform. The sampling data was shared with the compost industry who uses the standard at present time. Dr. Burger stated nowadays it might not be the best indicator of pathogens.

Chair McQueen asked Cunningham for clarification with concern of scope of non OIM products that might have a different manufacturing process. Cunningham stated the overview and scope is focused on organic fertilizers; however, the concern is how this will help the industry figure out organic fertilizers, such as biosolids.

Young stated from FMIP perspective, the goal of the survey was not to limit to OIM but to identify potential issues with any of the ingredient material, whether it was OIM or was sold otherwise.

Dr. Ba commented, stating at the end of the survey the data will be shared with the FIAB for evaluation and to make a recommendation on an action plan moving forward whether it be regulatory or outreach and education.

Chair McQueen stated by using existing staff and being reasonably funded, the survey is exploratory.

Howard inquired whether the result of this survey is focused on food or handling safety. Young stated FMIP looks at it within the purview of fertilizer and its contents, and whether it would exceed the standard process of manure. Beyond the purview would require additional laws and regulations. If the survey data is positive, it will lead a discussion of whether it is significant for FMIP to look at a standard. FMIP takes an ingredient-based approach as a starting point to then look at other aspects of that point.

MOTION: Gary Silveria moved to approve the pathogen pilot survey proposal as presented; Tim Howard seconded. Jake Evans abstained. The motion passed with a vote of 7 yays and 1 abstention.

Young presented FMIP's 2023 proposed rulemaking for FIAB guidance and comment before moving forward with the initial rulemaking process to the Office of Administrative Law. Proposed changes to the Fertilizing Materials – General Provisions include:

- Section 2300 (c) is being amended to allow guarantees to be analyzed by other referenced methods if not from the Association of Official Analytical Chemists (AOAC) lab method.
- Section 2300 (g)(1) is being amended to include the two-color option logo for OIM registered products.
- Section 2302 (a)(1)(2) is being amended to clarify heavy metals standards to include the amount guaranteed on the label.
- Section 2300.1 (m) is being adopted to include a definition for protein hydrolysate.
- Section 2303 (x) is being adopted to clarify label requirements for the term "amino acids".
- Section 2303 (y) is being adopted to clarify label requirements for the term "amino acid complex."
- Section 2303 (d)(1) is being amended to exclude OIMs in the license label guarantor's name and address for bulk commercial fertilizers and bulk agricultural minerals.
- Section 2311 (b)(1) is being amended to clarify slow released plant nutrients of water insoluble products.
- Section 2320.1 (d) is being adopted to clarify existing law section 14601 of the Food and Agricultural Code for changes to fertilizing material product labels submitted for registration.
- Section 2320.2 (b) is being amended to remove an outdated registration application referenced in this section as a requirement for OIM product label registration.
- Section 2320.2 (1), (10), (11), (12) and (13) are being adopted to add OIM registration application requirements.
- Section 2322.2 (b)(1), (c)(4) and (g)(1) are being amended to add Department standard language pertaining to hearing schedule, notification and procedures.
- Section 2322.4 is being adopted to add administrative penalty payment deadline to the Department and consequences of failure to remit administrative penalties.

Young announced the Beneficial Substance Model Bill will be voted on at the Association of American Plant Food Control Officials Winter Annual Conference on February 13, 2023. The Model Bill includes scope, definitions, labeling format, etc. The current version of the Model Bill has unanimous support from states that is most likely a "tentative" vote with an "official" vote in August.

The OIM Program is audited by the American Association of Laboratory Accreditation (A2LA) for the International Organization for Standardization 17065. A2LA recommended the OIM Program expand its impartiality survey participants; the OIM Program requests FIAB's assistance with completion of this annual survey. The survey is specific to the OIM Program's impartiality. The end of the survey identifies risks to impartiality that the program identified. An email will be sent to FIAB at the conclusion of the meeting that will include the impartiality survey and the Department's Incompatible Activities Policy (SO-112) only as a reference. FMIP requests submission of the completed survey by February 28, 2023.

Dr. Burger gave FMIP's product registration update as of December 31, 2022, reporting a total of 2,060 OIM registrations and 8,568 commercial fertilizer registrations were approved.

Dr. Burger presented a graph illustrating years of data for trends of new conventional fertilizer and OIM registrations from January of 2020 through November of 2022. Dr. Burger highlighted that the data on the graph appears stable, noting total approvals may vary due to the renewal schedule of every six months. The total conventional fertilizer applications approvals vary monthly between 200-600, an average of 100 new applications received each month.

Dr. Burger presented a table that displays the number of days that the applications are in the approval process for OIM renewals and new OIM registrations in 2020, 2021 and 2022. OIM renewals appear stable in the way they are processed. FMIP's total OIM renewals approvals were 1,105 in 2020; 878 in 2021; and 979 in 2022.

New OIM registration approval trends in 2020 seem much more than 2021 and 2022. Total new OIM registration approvals were 493 in 2020; 324 in 2021; and 284 in 2022. Seventy-five percent of new OIM registrations took more than 120 days for approval process in 2022, which led to the hiring of additional staff to assist with the product registrations.

Gus Olson asked about a triage system for administrative changes versus analytical review changes by assigning simpler changes to newer staff and the more complex changes to more experienced staff which could save time and become more effective for FMIP. Dr. Burger responded, stating the approval process turnaround times are due to long queues, the length of time it takes to get to the application. Some applications may not take long to review and approve.

Young added that the challenge is how to handle the volume of applications received and best manage time which continues to evolve. FMIP's approval process for product registration has been consistently better but with room for improvement.

Dr. Burger presented the tables for conventional label renewals and new conventional labels, noting the numbers are different from year to year on the conventional label renewals due to the renewal cycle. New conventional label renewals of 1,304 were approved in 2020; 891 in 2021; and 879 in 2022. Dr. Burger mentioned the number of label updates, formula updates and cancellations for conventional fertilizer and OIMs vary over the years.

Dr. Burger introduced new FMIP registration staff, Chi Banh, Gabriela Carreras and Gabriel Ortiz Barbosa. Banh has a Bachelor's in Horticulture from Texas A&M University. Carreras has a Bachelor's in Biochemistry from Florida International University. Ortiz Barbosa has a Ph.D. in Plant Pathology from UC Riverside. All three ES staff will assist with the review of product label registration.

Nicole Smith provided 2022 sampling and complaint summaries, reporting 1,072 total samples: 644 conventional samples and 428 OIM samples, with a 11.1% violation rate. FMIP received 21 formal complaints; 12 conventional fertilizer and nine OIM with 90% being label claim (misbranding) or product registration related. Smith reported 18 complaints have been investigated and resolved with three pending complaints.

Smith reported in 2022, there were 20 Notices of Proposed Action (NOPA) and none of the NOPAs were in default. This number is higher than previous years because there was a backlog from 2021. FMIP focuses on outreach and education to firms to help prevent the issue of violations.

Smith noted FIAB may notice a difference in the Center for Analytical Lab's (CAC) sample data which will later be presented on the agenda. CAC enters data when samples are received whereas FMIP goes by calendar year of when samples were taken. Not all samples were sent to CAC as some were sent to UCD noting the difference in numbers with CAC's sample update.

Smith introduced Mia Humphreys, newly appointed ES for Southern California region, specifically Santa Barbara, Ventura, Los Angeles and Orange Counties. Humphreys joins FMIP from the Department's Citrus Pest and Pest Prevention Program. Humphreys has a Bachelor's in Environmental Science and Resource Management from the California State University Channel Islands in Camarillo.

Mark Cady provided FREP updates. Cady introduced Karen Adler, FREP's newly appointed SES (Specialist). Adler has a Bachelor's in Human Ecology from Cornell University in New York and Master of Science in Agroecology from Norwegian University of Life Sciences in As, Norway. Adler was formerly an Agricultural Biologist III for the Contra Costa County Department of Agriculture.

Cady announced preproposals were due December 19, 2022; FREP received 27 preproposals. FREP Technical Advisory Subcommittee (TASC) met in January of 2023 moving 13 of the 27 proposals to the full proposal phase. Full proposals are due April 14, 2023. FREP TASC will meet on May 19, 2023 to recommend proposals for FIAB approval.

Cady provided an update to the Nitrogen and Irrigation Initiative (NII). The University of California Agriculture and Natural Resources (UCANR) has two vacant Project Scientist positions available in Santa Clara and Kern County. FREP is in collaboration with UCD and UCANR to provide training for recently hired Staff Research Associates (SRA) in Madera, Santa Cruz and Kern counties and an Academic Coordinator in the Bay Area. SRAs are working with Climate Smart Community Education Specialists with cost shares on irrigation. FREP is also combining CropManage in the outreach and support program. Cady acknowledges the FIAB approved it to be a three-year funded program; however, due to the hiring challenges and low spending on personnel, it is looking more like a potential four-year program. The Conservation Innovation Grant (CIG) is for three years but can also be extended. The Specialty Crop Block Grant is to be spent first when possible and backstopped with other funds. As part of the CIG, FREP is working with UCD for program evaluation and design for purpose of obtaining metrics. UCD developed survey tools, questionnaires for various activities such individual consultation, workshops or on-site demonstration project. FREP will collect this information. All tools are in place for the program to start rolling out.

The NII Stakeholder Advisory Group consists of Water Quality Coalition members, commodity board representatives, resource conservation districts and Certified Crop Advisers. FREP received feedback on the program and recommendations on improvements for communication and collaboration. FREP will meet with the NII Stakeholder Advisory Group on a quarterly basis for continued information sharing.

Gallo inquired about the education component tied to regulation for growers and what is to be expected. Cady stated FREP's Conservation Innovation Grant proposal to the USDA included focused outreach and education for growers who report high nitrogen usage and low utilization efficiency—those most at risk for regulatory action in the future. FREP's communication and outreach will be informed in part by the regulatory environment. The Nitrogen and Irrigation Initiative will focus on low efficiency townships identified in the Central Valley. UCD will report results on reported nitrogen use between locations that receive higher and lower intensity outreach.

CENTER FOR ANALYTICAL CHEMISTRY (CAC) LAB UPDATE

Maryam Khosravifard reported assays completed for samples received from August through December 31, 2022. CAC completed a total of 1,927 assays, averaging a seven-day turnaround time. Khosravifard reported assays completed for samples during the 2022 calendar year. CAC completed a total of 4,737 assays, averaging a seven-day turnaround time.

Khosravifard mentioned CAC has been tracking the lab's workload per year, presenting separate tables for samples received and analyzed through August 1 to December 31, 2022 and through the 2022 calendar year. CAC received 32% more assays for the period of August to December in 2022 although this was an 11% reduction on samples received during 2021. However, number of assays requested increased 1% compared to 2021.Therefore, overall work performed is very comparable during both years. From August 1 to December 31, 2022, CAC received 1,756 assays: 91.1%% of routine samples, 7.1% of priority samples and 1.8% of rush samples. CAC completed a total of 2,200 assays with a 12.4% of re-run samples and an average of 5.6 assays completed per sample. For the 2022 calendar year, CAC received 4,293 assays: 90.6% of routine samples, 7.5% of priority samples and 1.9% of rush samples. CAC completed a total of 5,322 assays with a 11.0% of re-run samples and an average of 5.3 assays completed per sample.
Khosravifard shared program updates. CAC's turnaround times are consistent even with staff absences and Nucleus Team staffing shortages. CAC's new inductively coupled plasma mass spectrometry has been installed and the vendor has provided a two-day instrument and software training to CAC staff. Stacy Aylesworth, CAC's SES (Supervisory), attended FMIP's staff meeting in January 2023 to gather an additional perspective on FMIP's plans for 2023 as well as to share lab information. Four CAC staff successfully completed the Division of Inspection Services Coaching Program led by Dr. Barzin Moradi, CAC's Branch Chief.

PUBLIC COMMENT
No public comments were made.

AGENDA ITEMS FOR FUTURE MEETINGS
No additional agenda items were requested for the next FIAB meeting.

NEXT MEETING
The next FIAB hybrid meeting (in-person and online) will be on Wednesday, May 31, 2023 in Sacramento, California.

MOTION: Chris Gallo moved to adjourn the meeting; Jake Evans seconded. The motion passed unanimously by all members present with a vote of 9 to 0.

ADJOURNMENT
The meeting was adjourned at 11:44 AM.

ORIGINAL SIGNED BY NICK YOUNG 02/07/2023
Nick Young **Date**
Environmental Program Manager I
Fertilizing Materials Inspection Program