

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

**June 2, 2020
9:00 a.m. – 12:00 p.m.**

MINUTES

MEMBERS

Chris Gallo
David McEuen
Doug Graham
Ed Needham
Gary Silveria, Vice Chair
Greg Cunningham
Jake Evans
Melissa McQueen, Chair

MEMBERS ABSENT

Jay Irvine

CDFA

Angelia Johnson
Amadou Ba
Barzin Moradi
Brittnie Sabalbro
Carla Sanchez
Dale Woods
Elizabeth Moseby
Evelyne Ndiaye
Kris Gulliver
Mark Cady
Martin Burger
Maryam Khosravifard
Natalie Jacuzzi
Natalie Krout-Greenberg
Nick Young
Nicole Smith
Sarva Balachandra
Stacy Aylesworth

INTERESTED PARTIES

Brandon Richards
Christina Johnson
Rebekah Finn
Renee Pinel

INTRODUCTIONS AND ANNOUNCEMENTS

Melissa McQueen, Chair, called the meeting to order at 9:04 a.m. Self-introductions were made, and a quorum was present. Jay Irvine was absent.

APPROVE FEBRUARY 25, 2020 MEETING MINUTES

Chair McQueen requested the board review the minutes from the February 25, 2020 FIAB meeting.

MOTION: Ed Needham moved to approve the minutes; Doug Graham seconded. The motion passed unanimously by all board members present with a vote of 8 to 0.

DEPARTMENT / DIVISION / BRANCH UPDATES

Natalie Krout-Greenberg announced that the Department has worked closely with the California Governor's Office of Emergency Services (CalOES) State Operations Center and Emergency Response Coordinator in response to the COVID-19 pandemic. In addition, the Department activated its own operations center to work directly with industry and address issues that the industry was facing which included: developing guidance for industry to ensure resources were deployed and supplies were secured;

developing the Department's resource webpage; working with the Department of Pesticide Regulation (DPR) to release a survey to understand agriculture's needs for Personal Protective Equipment (PPE); and working closely with CalOES to secure vendors and ensure supplies are available. The Department is actively engaged with the State Operations Center and Emergency Response Coordinator and will continue to watch the responses as the economy reopens and restrictions are lifted.

Krout-Greenberg reported on changes in the budget since January. The changes from the Governor Office's (GO) proposed budget presented in January to the revised proposed budget presented in May, were due to the deficit as a result of the COVID-19 pandemic. The GO's proposed budget includes a line item of \$10 million dollars for the Office of Farm to Fork, Farm to School program of which \$1.5 million would be staff funding to support the Office of Farm to Fork and Farm to School program; the remainder would support pilot grant programs to help fund farm to school efforts including school infrastructures to help procure and store fresh produce.

Krout-Greenberg reported that the Department is monitoring the proposed ten percent salary reduction for state employees as the negotiations take place with the unions and the outcome when the budget is released and signed by the Governor. Additionally, the Department is monitoring the proposed five percent reduction for programs throughout the Department for fiscal year (FY) 2021/22 as the Governor finalizes the proposed budget.

Krout-Greenberg reported that the Food and Drug Administration's (FDA) investigative report for the Salinas Valley outbreak of E.coli O157:H7 in romaine lettuce was published. The report details findings and discusses next steps and important risks to consider. This has prompted the Department to work on a three-year longitudinal study throughout California, an item presented in the FDA's leafy greens action plan. The purpose of the study is to conduct samples throughout the environment to understand the location of food borne pathogen risk and the ability to put mitigation measures in place. Krout-Greenberg stated she will continue to keep the board apprised of the study.

Dr. Amadou Ba reported that in addition to the ten percent salary reduction in the GO proposed budget, the Branch has been tasked to select five percent of staff available for contact tracing. The Branch identified staff that have minimal impact to the program's daily operations to mitigate those type of issues.

Dr. Ba announced the appointment on May 4, 2020, of Lisa Montanez and Kelly Amodeo, Environmental Scientists (ES) for the Fertilizer program. The two ES positions are FDA funded through the Produce Safety Program (PSP) and will work in coordination with the Department's PSP to focus on biological soil amendments of animal origin. Brooke Elliott, Research Data Analyst I, has promoted to Associate Governmental Program Analyst with the California Department of Public Health's Woman, Infants, and Children program.

Dr. Ba reported that at the last Feed Board Strategic Plan Workgroup (SPWG) meeting, the Center for Analytical Chemistry (CAC), the University of California Davis (UCD) Analytical Laboratory and the California Animal Health & Food Safety Laboratory System presented their proposals and associated costs for a full scope of work for the Feed program. The SPWG recommended that the Feed Board move the Feed program's lab services to UCD labs and on May 21, 2020 the motion to approve the recommendation was passed by the Feed Board.

Chair McQueen asked for the timeline for outsourcing the Feed program's lab services to UCD labs. Dr. Ba replied that the full transfer of services is anticipated to be between four to six months due to the time needed to prepare and execute a contract with UCD.

ISOTOPE TESTING AND ORGANIC FERTILIZER

Dr. Martin Burger provided an update on isotope testing as requested by the board at the last FIAB meeting. Dr. Burger stated that the program will use isotope testing as a tracking mechanism and the approach is simply to test a product and compare two measurements to determine a change in the nitrogen isotope ratio of organic fertilizers from points of manufacture to distribution and sale. The testing is currently limited to high ammonium liquid organic fertilizers. Nitrogen isotope ratios are based on the abundance of nitrogen (N) atoms with mass of 14 g/mole and 15 g/mole. Dr. Burger presented fertilizer composition and nitrogen isotope composition of synthetic nitrogen fertilizers reporting that isotope ratios of nitrogen from organic sources are generally between five to thirty percent higher.

Jake Evans emphasized the importance of isotope testing on organic fertilizers suggesting the board form a subcommittee or working group for further discussion on how isotope testing could be a long-term benefit for the Department to better understand the ranges of isotope ratios when isotope testing is not used properly, to continue to improve the integrity of organic fertilizer.

Chair McQueen asked for the Department's plan with isotope testing. Dr. Dale Woods stated the primary focus of the program's isotope testing is high ammonia liquid products as those have the greatest potential risks of firms using synthetic fertilizers for adulteration. Ammonia can be made synthetically or organically and the use of isotope testing is designed to assist the program in monitoring the products that are in the channels of trade.

Dr. Ba stated that the isotope testing is part of the Fertilizer program's on-site inspections of identifying novel products with a baseline isotope signature. If there is deviation to the original signature, a followup is pursued to determine if the change is ingredient or manufacture related. Dr. Ba stated that it is still early in the process and

advised the program to accumulate more data to determine if a subcommittee or working group would be necessary in the future.

Chair McQueen agreed that a working group at this time might be premature and the Department should continue to gather more data. Chair McQueen asked for board input; there were no comments made by the board.

Krout-Greenberg asked for clarification on the intent of forming a working group asking whether it is to address the isotope testing as a regulatory approach or help guide and strengthen the testing as a tool for inspection purposes. Evans stated the working group would be to help understand the parameters and use of the isotope testing and decide a regulatory pathway in the future. Evans noted that there be a broader level of experts to help the program and board understand the testing for these mainstream products.

Gary Silveria, Vice Chair, asked if the Department was working to develop standards for all various products that could be introduced. Dr. Ba stated the program currently has a single registered product requiring further review. Dr. Ba suggested a potential meeting of experts to educate the Department, board, and industry to obtain more information.

Chair McQueen thanked Evans for bringing isotope testing to the board's attention and stated that the Department will move forward and continue to pursue the isotope testing.

FUND CONDITION / MILL ASSESSMENT / TONNAGE REPORTING

Dr. Woods reported that as of July 1, 2019, the beginning balance combined total for the Commercial Fertilizer and Organic Input Material (OIM) program was about \$11.4 million; total revenue was about \$4.4 million; expenditures were about \$3.0 million; and encumbrances were \$331,520, with an adjusted balance of about \$12.4 million.

Dr. Woods reported that the proposed rulemaking to reduce the mill assessment to one and one half mill (\$0.0015) was approved and would take effect on July 1, 2020. The mill reduction will affect program revenue. Chair McQueen stated that the program and industry should anticipate the effects in the coming year with the low demand of fertilizer supply and less planting acreage due to more institutional food service use.

The beginning balance for the Fertilizer Research and Education Program (FREP) was about \$5.1 million, revenue was about \$1.8 million, expenditures were about \$929,769, and encumbrances through June 30, 2020 were about \$1.1 million, with a total adjusted balance of about \$4.8 million.

Vice Chair Silveria asked if FREP has a deadline for contract encumbrances, referring to funds encumbered as far back as FY 2016/17. Natalie Jacuzzi replied that the encumbered funds for FY 2016/17 and FY 2017/18 reflect the remaining funds of two projects; both which have had no cost extensions amendments to their grants. FREP works with project leaders and the Department's Grant Office on remaining funds and

processing final invoices. When researchers are unable to execute trials or deliverables, they will continue the project into the following year. FREP encourages researchers to expand their outreach and education opportunities with a no cost extension.

Dr. Woods presented the mill assessment trends, highlighting the first ten months of the current FY 2019/20 and the total to date of \$7.1 million.

Kris Gulliver reported the 2019 tonnage report has been published on the Department's webpage. Gulliver provided a quick comparison of 2018 versus 2019 data for tons of nitrogen, phosphorus, potassium, OIM bulk compost, and liming materials. Overall, tonnage reporting has been steady.

BIOSTIMULANT WORKING GROUP FOLLOW UP / PROGRAM UPDATES

Chair McQueen stated there has been no activity for the biostimulant working group since the February FIAB meeting and asked Dr. Burger to begin program updates.

Dr. Burger reported the total registrations as of May 15, 2020 for OIM and conventional fertilizers that were either approved, provisional, pending review, resubmitted, or in data/revisions required status. Dr. Burger also reported on the total number of new applications and renewals for Conventional Fertilizer and OIM that have been completed during March and April of 2019 comparing them with present time.

Dr. Burger stated at the last FIAB meeting, lime score was requested as an agenda item, reporting that lime score is not a program requirement, but firms can include it on the label. Calcium carbonate equivalent, fineness, and dry fraction are qualities that determine the Oregon Department of Agriculture's lime score calculation. Since lime score is not a program requirement, the program has not checked lime score calculations; however, the program has found inconsistencies on approved labels such as calculation errors or mesh percentages incorrectly filled. Moving forward, the program will check calculations for new registrations and renewals and if mesh percentages persist, the program may consider regulations to be more explicit.

Christina Johnson, Agricultural Products Manager of Blue Mountain Minerals, asked if the program will use the label numbers to formulate the agricultural lime score calculation and expressed concern that calculations based on label numbers would result in a lower lime score due to the Department's minimum of calcium, magnesium, and particle sizes. Johnson asked how the program would address a label that does not represent a typical lime product, because the score will be inaccurate and lower than what the grower is purchasing. Dr. Burger stated that from a program registration standpoint, the program can only check the numbers provided on the label.

Johnson reported that Oregon requires 100 mesh; however, 100 mesh is not giving solubility credit on lime score. Johnson asked how the program will ensure that the calcium carbonate equivalent is accurate and if the program will base their calculations on chemistry and actual product, or on calcium, magnesium or carbon; each formula has a different calcium carbonate equivalent. Stacy Aylesworth stated that CAC uses a

calcium content analysis method to calculate calcium carbonate which can be provided to the board.

Johnson stated the inconsistencies with lime score calculations could lead to a potential disservice to farmers. Oregon's lime score is based on the minimum of calcium, magnesium and maximum moisture, which was not presented on the label. Oregon checks the actual product chemistry analysis to determine the agricultural lime score. Agriculture lime score based on label calculations is inaccurate. Oregon has allowed lime score on the label, but the chemistry analysis must match. Johnson stated when percent 'retained' or 'passed' is not clarified for industry, the assumption is retained. The Department removing the term 'passing' has caused confusion to the industry resulting in the mesh percentage to be incorrectly filled. Johnson suggested the program add the term 'passing' back onto the label. Dr. Woods acknowledged that lime score labeling is of industry interest and the program will investigate and address the inconsistencies with label calculations.

Ed Needham asked what the plan is moving forward with lime score labeling to correct the inconsistencies. Needham suggested that Johnson be a resource for the program as she represents a company that is a major supplier in the market and the knowledge and expertise she can provide would help streamline the process. Dr. Woods stated that if the program proposed regulations, it must show transparency and consider the implications of how the change will affect industry. The program will communicate with Oregon and other states to assist in a resolution.

Nick Young reported that the onset of the pandemic and shelter-in-place order has impacted program inspections. Non-mission critical inspections ceased during the order; however, complaint and violation investigations, and administrative penalties continued. All inspection and sampling activities resumed during the week of May 18, 2020 including aseptic and bulk distributor sampling and OIM and conventional inspections with enhancements of inspection procedures, PPE and sanitation procedures. There has been an emphasis on outdoor inspections, wearing masks, and keeping physical distancing to ensure there are no cases within 14 days, and on sampling from trucks delivering to growers.

Young announced the violations matrix rulemaking became effective April 13, 2020. The biggest components were revising the sampling method to align with the Association of American Plant Food Control Officials (AAPFCO) and standardization to the violation matrix. The mill assessment rulemaking to reduce the mill assessment rate was approved and becomes effective July 1, 2020.

The AAPFCO summer annual conference will be online on July 31 and August 3-4, 2020. The biostimulant committee will be held during the online conference. More details will be announced on AAPFCO's webpage.

Jacuzzi reported FREP received over 40 Request for Proposals (RFPs); 15 moved to full proposal. FREP's Technical Advisory Subcommittee (TASC) will review full

proposals in mid-July. Jacuzzi gave an update on the special RFP released in December of 2019, in coordination with the Central Coast Regional Water Quality Control Board, to address nitrogen accumulation and removal values for 21 crops. FREP received one proposal; TASC reviewed and recommended the proposal for funding. The proposed three-year project will help determine the amount of nitrogen removed in the harvested product for 35 Central Coast commodities. Jacuzzi presented the FY impact for 2020/21 through 2022/23 to be \$353,575.60.

Chair McQueen asked for a board motion to approve the special RFP presented by FREP.

MOTION: Doug Graham moved to approve the FREP's special RFP; David McEuen seconded. The motion passed unanimously by all board members present with an 8 to 0 vote.

CENTER FOR ANALYTICAL CHEMISTRY (CAC) LAB UPDATE

Dr. Barzin Moradi noted that the lab tour and on-site discussion that was planned at the last board meeting was postponed due to COVID. Instead, he provided background and overview of the lab structure. Dr. Moradi highlighted that CAC has had International Organization for Standardization (ISO) accreditation since 2004. CAC works with counties, several programs within the Department, and other programs within the state and federal government. Dr. Moradi presented an overview of multiple programs within CAC. CAC runs an annual budget of \$12.5 million; 11 percent of the budget coming from the Fertilizer program lab services. Dr. Moradi reported that Fertilizer samples are 10 percent of the samples CAC receives each year and 10 percent of the 67 total instrumentation are used for sample analyses for Fertilizer program.

Maryam Khosravifard presented an update on the remodeling of the lab with the new technology, including sampling activities for Feed and Fertilizer labs. Both labs reside in the regulatory analysis unit where over 113 different analyses are performed on a wide variety of instrumentation in response to animal health emergencies, in-organic chemistry, and pesticide analysis. CAC has worked diligently for the past two years to cross train staff on various analyses. Khosravifard announced that it has been a tremendous achievement as the lab now has the capability to rapidly respond to assays. Khosravifard presented photos of lab benches, grinding room upgrades, and new instrumentation in the lab.

Khosravifard reported that changes in CAC's process and workflow included: developing and improving several methods, electronically submitting and receiving sampling sheets, training multiple backup staff for sample extraction/digestion, cross training staff on advanced technology, completing vendor trainings to increase staff skills, and incorporating preventative maintenance and repairs into purchasing contracts. Khosravifard reported the sample turnaround times for fertilizer have improved over the last two years.

Sarva Balachandra stated the key to lab quality is accuracy, reliability, consistency, and timeliness of reported results. Every operation in the lab is properly documented to ensure CAC meets the requirements and accreditation standards. Balachandra explained the importance of training and competency allows for staff to consistently apply the protocols to accurately obtain data. Procurement of standards, equipment, or measurements must be from accredited vendors that are verified and preapproved. Internal and third party audits are critical, giving CAC the opportunity to look at internal processes holistically to address any issues in lab operations. Proficiency checks and quality control are an important aspect for data defesibility and become critical for inspection services in ensuring industry compliance with the laws and regulations. CAC has a process in place where data is reviewed to ensure quality and give an opportunity to address process improvements. Equipment maintenance and performance verification is also a critical component for accuracy in measurements and proper testing to ensure smooth operations. These aspects in the lab have enabled CAC to accomplish robust operations in the fertilizer lab that will increase the effectiveness and continuous improvement.

Khosravifard reported CAC received a total of 881 assays with an average 13-day sample turnaround time. The lab completed 1,141 assays through the old methods and instrumentation with an average 11-day sample turnaround time. Khosravifard presented lab activites since COVID included: analyzing samples while maintaining social distancing, analyzing rush bovine death samples, training staff on aflatoxin and mycotoxin methods and new Inductively coupled plasma - optical emission spectrometry, validating new nitrogen/protein analyzer, developing methods for the Ankom fat and new sulfur analyzer, and updating analytical method documents on the Department's website.

In an effort to explore options for an emergency backup plan, CAC has contacted other state labs by emailing 215 AAPFCO members responsible for administrating the fertilizer program throughout the nation; of the 215, only nine responded. States were willing to help on an informal basis, unable to help, or did not have the capacity to help at this time. CAC's plan in preparation for an emergency is to work on a multi-state formal agreement and with those state labs that are willing to assist, send samples to a "fee for service" state lab and to commercial lab.

Evans asked if CAC is paid by the Environmental Monitoring lab and DPR for instruments or is it funded by the Fertilizer program. Dr. Moradi stated CAC is fully funded for all its contracts and programs that include instrumentations. The Fertilizer program only pays for fertilizer lab services, the instruements used for those lab services, and overhead costs of quality assurance and business operations.

Evans asked CAC's thoughts about the impact with the potential loss of feed program services. Dr. Moradi stated CAC plans to keep the Fertilizer program whole and be mindful of staffing arrangements and training during the transition. CAC is early in the process of program reorganization and staff reassignment. Dr. Moradi stated that there

should not be an impact to the Fertilizer program lab services operations and does not see a major impact on budget. Dr. Moradi stated CAC is working on the budget in the next few months to provide at the next FIAB budget meeting.

PUBLIC COMMENT

Renee Pinel reported that most COVID related issues have been addressed by industry. Pinel commended industry's response with state and county requirements in setting up safety standards to protect their employees and in responding and providing products in a safe manner to growers. Aside from the restrictions and impact on the growers' ability to provide commodities for food sectors, Pinel stated that the retail and fertilizer industry has done well at handling COVID issues.

No other public comments were made.

AGENDA ITEMS FOR FUTURE MEETINGS

Chair McQueen asked for agenda items for the next FIAB meeting. Needham stated gypsum labels to gypsum equivalent anhydrite (blended products) have also created confusion, requesting it be an agenda item. Needham requested the program and board also address that companies bring out-of-state gypsum into California, blend it with higher grade material, and sell the product with no indication that it is a blended material. Blending materials are difficult to maintain, products must be disclosed on the label for transparency purposes of product origin. Dr. Woods stated the program will work on addressing the two items mentioned by Needham.

Krout-Greenberg asked if the board wanted the program to continue providing updates on isotope testing. Chair McQueen stated that the board would like to have a continuous update on isotope testing.

Pinel suggested a biostimulant working group update be an agenda item if there is further discussion at the AAPFCO meeting in August.

NEXT MEETING

The next FIAB meeting will be on September 29, 2020 at 9:00 a.m.

MOTION: Gary Silveria moved to adjourn the meeting; Doug Graham seconded. The motion passed unanimously by all board members present with an 8 to 0 vote.

Chair McQueen adjourned the meeting at 12:12 p.m.

Respectfully submitted by:

ORIGINAL SIGNED BY DALE WOODS

Dr. Dale Woods

06/02/2020

Date

Environmental Program Manager I
Fertilizing Materials Inspection Program