

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

**CDFA, Inspection Services Division
2800 Gateway Oaks Drive, Room 101
Sacramento, CA 95833**

**September 17, 2015
MINUTES**

MEMBERS

Brad Baltzer, Chair
Andrew Godfrey
Doug Graham
Melissa McQueen
Steve Spangler

CDFA

Amadou Ba
Angelia Johnson
Barzin Moradi
Brooke Elliott
Dale Woods
Doug West
Kevin Wall
Kristopher Gulliver
Maria Tenorio
Marilyn Boehnke
Marja Koivunen
Mark Cady
Megan Kavanaugh
Natalie Jacuzzi
Nick Young
Nirmal Saini
Wei Wu

INTERESTED PARTIES

Mindy DeRohan
Rebekah Menezes
Renee Pinel

INTRODUCTIONS AND ANNOUNCEMENTS

Chairman, Brad Baltzer, called the FIAB meeting to order at 9:00 a.m. Ms. Rachel Oster, Mr. David McEuen, Mr. Gary Silveria, and Mr. Jake Evans were unable to attend today's meeting. Self-introductions were made and a quorum was established.

APPROVE MAY 13, 2015 MEETING MINUTES

Chairman Baltzer requested the Board review the minutes of the May 13, 2015 FIAB meeting.

MOTION: Mr. Doug Graham moved to approve the minutes as submitted; Mr. Andrew Godfrey seconded. The motion passed unanimously by all board members present with a vote of 5 - 0.

DEPARTMENT, DIVISION, AND BRANCH UPDATES

Dr. Amadou Ba announced recent hires to the Feed, Fertilizer, and Livestock Drugs Regulatory Services Branch (FFLDRS). Mr. Kevin Wall was hired as a Feed, Fertilizer and Livestock Drug Inspector, Dr. Marja Koivunen was hired as Senior Environmental Scientist (Specialist), and Dr. Shari Lo Grossman was hired as an Environmental Scientist within the Fertilizing Materials Inspection Program (FMIP). Mr. Timothy Valles was appointed as a Program Technician II, Ms. Minal Patel was appointed as an Office Assistant, and Ms. Melissa Espejel was appointed as an Agricultural Aide (Seasonal) within the Branch Office Support Staff Unit (BOSS). Mr. Nick Young was moved to a Supervising Special Investigator II position on an out-of-class assignment, and Mr. Param Singh was promoted to Supervising Special Investigator I, on a limited term basis.

Dr. Ba informed the board of legislative and regulatory issues. Assembly Bill (AB) 1039, drafted by FFLDRS staff, would amend the Food and Agricultural Code (FAC) to enhance CDFA's ability to collect administrative penalties, has been signed into law by the Governor. The new Food Safety Modernization Act (FSMA) rules for preventive controls for Human Food and Animal Food are now finalized. The new requirements of the rule will heavily impact the Feed Program. Senate Bill (SB) 27, regarding the use of antimicrobial drugs in livestock, will impact the Livestock Drugs Program and the Feed Program. The bill passed through the Assembly and the Senate and is currently on the Governor's desk for signature.

To implement FSMA, the Food and Drug Administration (FDA) offered grants and cooperative agreements to state feed programs. CDFA submitted an application and has been awarded \$450,000 per year for five years - \$300,000 per year for FFLDRS to achieve and maintain full implementation of the Animal Feed Regulatory Program Standards (AFRPS), and \$150,000 to the Center for Analytical Chemistry (CAC) laboratory enhancement and coordination to maintain, and enhance International Organization for Standardization (ISO) 17025:2005 accreditation.

Bargaining Unit 10, the professional scientists union, has entered into a tentative agreement with the state for a salary increase for rank and file members. The increase will be a five percent per year salary increase, for the next five years. The tentative agreement requires ratification by the membership and the state legislature, and the Governor's signature. The salary increases would impact the budget, but since the salary increase is not yet official, it cannot be included in the proposed budget.

CDFA has developed the Office of Environmental Farming and Innovation (OEFI) headed by CDFA Science Adviser, Dr. Amrith Gunasekara. OEFI will provide incentives to farmers and ranchers whose practices improve ecosystems, air quality, and wildlife and its habitat. Two programs under the OEFI umbrella, the State Water Efficiency and Enhancement Program (SWEEP) and the Dairy Digester Research and Development Program, received funding from the Greenhouse Gas Reduction Fund via the state cap and trade program.

FERTILIZER LABEL REGISTRATION UPDATES

Dr. Dale Woods stated FFLDRS has only one vacancy, an Environmental Scientist position within the FMIP. The position was advertised and applications are coming in. He reported 7,800 conventional registration applications had been approved and 121 were pending review as of September 16, 2015. Although it is late in the year to receive applications, they are still coming in. As of August 2015, 1,447 Organic Input Material (OIM) applications were approved and 41 were pending review.

Dr. Woods informed the board annual audits are required to maintain the International Organization for Standardization (ISO) 17065 accreditation. An internal audit was held in July 2015, and the United States Department of Agriculture (USDA) - AMS audit is expected in February 2016. FMIP expected the accreditation to be the last step to obtain USDA - National Organic Program (NOP) recognition as a Material Review Organization (MRO). The Division Director, Mr. Rick Jensen, wrote a letter to the NOP in August 2015, requesting formal recognition of the OIM Program as an MRO. The letter outlined how the program meets the requirements and polices of NOP Policy Memo 11-4 and Guidance Document 5012.

The fertilizer workshop is scheduled for October 7-8, 2015, in Sacramento at the Holiday Inn. The annual workshop has break-out sessions on tonnage and mill reporting, registration and licensing, OIMs, and the Extraview database; it also allows time for one-on-one appointments with registration staff.

The Program is planning a change to the upcoming registration renewal process. Both OIM and conventional applications are currently due in January. To address the heavy influx of applications, the Program will send out a notice in October 2015 stating OIM applications will be accepted in the beginning of November 2015. The turnaround time for an OIM firm, which submits a complete renewal package with all necessary documents, is approximately three months. The intent for early registration is to have many applications reviewed, pre-approved, and ready to finalize upon receipt of the fees, which cannot be accepted until January 1, 2016.

The Association of American Plant Food Control Officials (AAPFCO) has a few proposals under discussion that will impact aspects of the industry. One issue is the question of allowing amendments on the grade statement, based on the relative content of nitrogen (N), phosphorus (P), and Potassium (K). Some states are making an effort to have firms change their product names to address this. In California, any changes that result in a product name change would require a new registration with all associated fees. This would be significant for the Program because there are currently 5,250 approved labels that require a grade statement.

California and a few other states have been testing for and allowing silicon on labels with some very specific verbiage; however, the testing methods and labeling are different from state to state. AAPFCO is now reviewing laboratory methods and label requirements, and is very close to approval. The AAPFCO-approved label will likely have the term soluble silicon, and the Program would have to change its labeling standards for consistency. If the Program changes its requirements, industry will be given notice and allowed a significant amount of time to make the label changes.

Silicon is now accepted on labeling for dicots. Enough data has finally been provided to show that silicon is a benefit and not just for monocots. The Program has not sent a notice to industry, but it will be discussed at the October 2015 workshop.

There is discussion at AAPFCO regarding humic acid, which has been a perennial issue in the nationwide registration community. CDFA has been ahead of the humic acid issue because the Program accepted one supportable claim and was firm about what would be allowed; that is a defining characteristic for California because other states do not do these inspections and test for the acids. Some states are moving towards accepting laboratory methods for fulvic acid; however, there are issues with the testing method. The Program doesn't anticipate any changes for quite a while, as the CAC would have to assert that it is able to functionally conduct those tests, and appropriate efficacy data would definitely be needed to show the addition of fulvic acid is scientifically supported.

INSPECTION UPDATES

Mr. Nick Young stated 144 OIM inspections (approximately 60 percent) were completed in California, Oregon, Nevada, and Arizona by the end of August 2015. The Program is on track to have all inspections completed for California and bordering states by the end of the 2015 calendar year. The number of locations requiring inspections continues to increase; currently, there are 248 total locations - 20 percent more than in 2014.

Mr. Young announced he will be serving on the board of AAPFCO, which will give California more of a voice at their meetings, as appropriate, since California is a leader in the agricultural industry. He will be presenting at an AAPFCO meeting soon, and plans to announce that Ecocert will be conducting out-of-state and out-of-county inspections on behalf of CDFA. Online classroom training was initiated in May 2015 for seven Ecocert inspectors who will be conducting OIM inspections in the United States (US). Mr. Young traveled to Minnesota, Iowa, Mississippi, and Washington to do in-field training. Out-of-country inspections are expected to begin in late 2015 or early 2016.

Chairman Baltzer asked if there was a chance for reciprocal inspections with other states. Mr. Young replied not at this time. Dr. Woods stated it is a long-term possibility.

Mr. Young stated a civil penalty case is the end result of uncorrected violations. The interval for a firm to correct an issue from a warning notice to a penalty notice is generally three to five months. Since the May 13, 2015 board meeting, four civil penalty cases have been completed; two with OIM manufacturers and two with specialty fertilizer manufacturers. In three cases the manufacturer paid the penalty. In the fourth case, the manufacturer signed a stipulation to pay the fine. There are six new cases pending for various violations. The firms have several options: request an informal hearing with a hearing officer, request a formal hearing, or accept and pay the fine. Most firms pay the fine because the cases have been very thorough with concrete evidence. Out of approximately 20 civil penalty cases, only 3 or 4 firms requested hearings.

Discussion ensued regarding posting a list of firms who are fined for violations on the CDFA website; however, a list will not be posted at this time. There are too many unresolved questions and potential legal issues. If the board or the industry requests that a list be posted, the Program would work with the CDFA Legal Office to determine the details of how much information would be included.

OIM OUT-OF-COUNTRY INSPECTION CONTRACTS

Dr. Woods stated CDFA had signed and implemented contracts for OIM inspections for Canada and Mexico with Ecocert. The international contract for the remaining countries, China, India, etc., which will also be with Ecocert, is being finalized and is expected to be signed soon. Six separate contracts (four out-of-state, one for Canada and Mexico, and one for the remaining international locations) went out for bid separately. Ecocert won each 2-year contract individually based on the qualifications of the bid. Ecocert is one of the largest organic certification firms conducting inspections in over 80 countries. Ecocert is USDA accredited to inspect, review, and certify organizations as USDA - NOP certified.

Mr. Steve Spangler asked what the value of the products being inspected is, versus the cost of the inspections. Dr. Woods replied there is concern related to cost of inspecting every OIM manufacturer; however, it is required by our laws and regulations to inspect every firm, every year. There are approximately 55 locations out-of-country, and 160 locations under the four out-of-state contracts. The Program will have to inspect locations where the cost of an inspection will be significantly more than the wholesale cost of the product. However, as some of these inputs show up in many products, it is appropriate to carry out inspections.

FUND CONDITIONS, FY 15/16 REVISED BUDGET, and FY 16/17 PROPOSED BUDGET

Dr. Ba reviewed the fund conditions for the fiscal year (FY) beginning July 1, 2014 and ending June 30, 2015. The beginning balance for the commercial fertilizer fund was \$4,700,707; the revenue was \$4,515,869; the expenditures were \$3,902,174; the encumbrances were \$286,899; and the adjusted ending balance was \$5,027,503.

The beginning balance for the OIM fund was \$405,993; revenue was \$365,320; expenditures were \$860,246; encumbrances were \$51,265; and the adjusted ending balance was \$140,198. Approximately \$220,000 of the OIM revenue was from mill assessments. The program is carefully accounting for all OIM expenditures in order to have a clear picture of the actual cost of the program.

The Fertilizer Research and Education Program's beginning balance, as of July 1, 2014, was \$2,685,073; the revenue was \$2,277,064; and expenditures were \$1,971,925. The total contract encumbrances through FY 14/15 were \$950,888; the adjusted ending balance was \$2,039,324.

The total mill assessment rate was set at \$0.003 from FY 2003/2004 through 2007/2008; FY 2009/2010 to 2012/2013 the rate was \$0.0015; from FY 2012/2013 to 2014/2015, the rate was \$0.002; and, effective October 2014, the rate is set at \$0.003. The increase from 2 to 3 mills mitigated somewhat the loss in revenue that might have been felt due to the effects of the drought on production.

This year the Program added a column for the Governor's Budget in the budget spreadsheet presented to the board. The Governor's budget shows program authority, while the program budget is the expenditure plan. Going forward the Program will present both budgets.

Dr. Ba stated no revisions are needed to the OIM Program's budget for FY 15/16. However, approval is needed to increase the Fertilizer Program's budget from \$4,298,019 to \$4,846,551. The increase is due to the out-of-state and out-of-country OIM inspection contracts, which also cause an increase in operating expenses and equipment (OE&E).

The proposed FY 16/17 budget for the Fertilizer Program was \$4,871,734. The proposed OIM Program's FY 16/17 budget is \$788,661; total net program costs are proposed at \$5,660,395.

MOTION: Mr. Andrew Godfrey moved to approve the revised FY 15/16 Fertilizer Program's budget of \$4,846,551 and the proposed FY 16/17 combined budgets for the Fertilizer and OIM program of \$5,660,395; Mr. Doug Graham seconded the motion. The motion passed unanimously by all board members present with a 5 - 0 vote.

The FREP proposed FY 16/17 budget was \$2,939,325.

MOTION: Ms. Melissa McQueen moved to approve the proposed FREP budget for FY 16/17 of \$2,939,325; Mr. Andrew Godfrey seconded. The motion passed unanimously by all board members present with a 5 - 0 vote.

DRAFT PROPOSED REGULATIONS

Mr. Nick Young gave an overview of the proposed regulations prepared to correct inconsistencies and conflicts within the California Code of Regulations (CCR) pertaining to fertilizers. Five working groups within CDFA closely reviewed and discussed the regulations and carefully reviewed possible changes, deletions, and additions. After fifteen months of meticulous work, the proposed changes to CCR sections 2300 to 2324 were finalized. There are a total of 28 modifications - 5 new regulations and 23 revisions; all changes would be in-line with existing authority. The objectives for the changes are to increase transparency, close loopholes, improve clarity and uniformity, and mirror existing laws and regulations.

LABORATORY UPDATES

Mr. Nirmal Saini reported the workload was recently heavier for the CAC, but the CAC was able to complete 97 percent of the samples within 28 days. During January 1, 2015 through July 31, 2015, 813 samples were received. Of those, 773 were routine samples; 8 were priority samples; 14 were partial rush samples; and 18 were rush samples. The average assays per sample were 4.92; total assays requested were 3,996; of those, 3,874 were routine and 122 were rush. The majority of the turn-around times were under 14 days.

FREP UPDATES

2015 Regular Request for Proposals

Dr. Doug West stated the FREP 2015 regular RFPs began in December 2014 and the concept proposals were due in January 2015. The proposals were reviewed and the authors of selected projects were asked to submit a full proposal by May 2015. Priority areas are similar to those of the past few years: Developing Integrated Water and Nutrient Management Tools; Education and Outreach; Developing New Best Management Practices (BMPs) ; Field-Scale Demonstration of Recommended BMPs Related to Fertilizing Materials; Filling Knowledge Gaps for Nitrogen Management in Specific Crops in the San Joaquin Valley. The award notification of the recommended projects approved by the board at this meeting, if any, would be September 18, 2015, and those projects would start January 2016.

Six regular RFP project proposals were evaluated by the FREP Technical Advisory Subcommittee (TASC) and peer reviewers and three were recommended for funding:

- 1) Prediction of Summer Leaf Nitrogen Concentrations From Early Season Samples to Better Manage Nitrogen Inputs at the Right Time in Trees and Vines, by Patrick Brown and Emilio Laca;
- 2) Improving Nitrate and Salinity Management Strategies for Almond Grown Under Microirrigation, by Maziar Kandelous and Patrick Brown; and
- 3) Evaluation and Demonstration of Nitrogen and Phosphorus Management in Organic Leafy Greens

Vegetable Productions on the Central Coast, by Richard Smith and Mike Cahn. The cost to fund the projects over the next three fiscal years would be \$652,326.

MOTION: Mr. Steve Spangler moved to approve \$652,326 in funding for the three projects recommended by the TASC; Mr. Doug Graham seconded. The motion passed unanimously by all board members present with a vote of 5 - 0.

Summary of Current Projects

Dr. West reported there are currently 31 active projects; 34 with the newly-approved projects. In FY 14/15, the available funds for projects was \$1,500,000. With the increase in the mill assessment, the research funds were increased to \$2,000,000. The encumbered funds for 15/16 are \$1,387,673; for 16/17, \$847,677; and for 17/18, \$419,813.

Updates on Selected FREP Projects

Ms. Natalie Jacuzzi reported on the status of three of the FREP projects. Irrigation and Nitrogen Management Web-based Software for Lettuce Production (CropManage), by Michael Cahn, et al. – CropManage is a web application (app) for managing water and nitrogen fertilizer that is publicly available for growers, ranch managers, and California Certified Crop Advisers (CCAs). The app was first developed for lettuce, and currently supports seven crops. CropManage provides weather-based irrigation schedules and fertilization schedules on a weekly basis. Approximately six months ago, the app had 550 users and use of the tool is growing.

Assessment of Plant Fertility and Fertilizer Requirements for Agricultural Crops in California (Guidelines), by Dr. Daniel Geisseler, et al. – The Guidelines project has online research-based fertilization guidelines for 17 crops, specifically chosen as they make up more than 60 percent of the irrigated crop acreage. Twelve more guidelines are planned to be added over the next two years. Some guidelines are currently available in Spanish and more are being translated. The guidelines emphasize the BMP known as the 4r's of nutrient stewardship: the right source, the right rate, the right time, and the right place for fertilizer application.

Determining the Fertilizer Value of Ambient Nitrogen in Irrigation Water (Pump and Fertilize), by Michael Cahn et al. – Pump and Fertilize is actually two projects, one for cold crops and one for nut crops. The cold crop project shows accounting for Nitrogen in irrigation water would further reduce fertilizer needs as even very low concentrations of nitrate in irrigation water is taken up by vegetables. It has been adopted in grower requirements of the Irrigated Lands Regulatory Program of the Central Valley and Central Coast Regional Water Quality Control Boards. The nut crop project is very similar to the cold crop project, as it also aims to optimize the use of ambient nitrogen.

Updates on Nitrogen Management Training for Grower Self-Certification

Mr. Mark Cady informed the board a Central Valley Regional Water Quality Control Board (CVRWQCB) order requires all growers to have a Nutrient Management Plan (NMP). The NMP for growers in areas vulnerable to nitrate leaching would have to be certified. The CVRWQCB Order has two options for certifying an NMP: a plan could be certified by a CCA who attended the CDFA and University of California Natural Resources training program, or growers who pass the training program could certify their own NMP. CDFA will train CCAs to train the growers. UC Davis is developing the curriculum and the evaluation questions for the certification exam following the training. Two train-the-trainer events are proposed to be held in November or December 2015. Grower training in the field should be January or February 2016, with all training completed by the end of March 2016.

BOARD and TASC VACANCIES

Dr. Ba announced there will be three vacancies on the board on October 14, 2015; membership terms are expiring for Mr. Jake Evans, Mr. Andrew Godfrey, and Ms. Rachel Oster. Ms. Oster decided not to reapply for membership at this time. There are seven applicants for the three positions, including current board members, Mr. Evans and Mr. Godfrey. All applicants have been verified as holding a California fertilizer licensee or are a representative of a California licensed fertilizer firm.

MOTION: Mr. Steve Spangler moved to appoint Mr. Jake Evans, Mr. Andrew Godfrey, and Mr. Ron Naven to the board; Ms. Melissa McQueen seconded. The motion passed unanimously by all board members present with a vote of 5 - 0.

The board's appointment recommendations, along with applicant information, will be sent to the Secretary for the final decision on appointments.

Dr. Ba presented the information on the TASC vacancies. There were eleven applicants for the TASC. One of the applicants is no longer eligible as she is now an employee of CDFA. The USDA – Natural Resources Conservation Services (NRCS) vacancy is filled by the applicant from USDA - NRCS. Two seats need to be filled by this Board. The TASC has remained a diverse group with different expertise.

MOTION: Mr. Doug Graham moved to appoint Ms. D. D. Levine and Mr. John Bushoven for membership on the TASC; Mr. Andrew Godfrey seconded the motion. The motion passed unanimously by all board members present with a 5 - 0 vote.

AGENDA ITEMS FOR FUTURE MEETINGS

Chairman Baltzer asked for agenda items for the next meeting. Mr. Godfrey requested a summary of the results of accepting OIM application packages in November; whether there

was a timely response, or perhaps how many responded with an early registration package. Dr. Woods stated that would be included as part of the regular registration update.

Chairman Baltzer suggested the next agenda should include an update and discussion on the mill assessment rate and fertilizer pricing. With the water issues due to the drought and the weak to flat fertilizer pricing, the board will need to be aware of the situation in the event a formal change needs to be made. He also suggested an update on the pending civil penalties and on the progress of the proposed regulations.

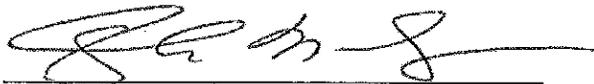
NEXT MEETING

The next FIAB meeting will be 9:00 a.m., Thursday, January 14, 2015, in Sacramento.

MOTION: Ms. Melissa McQueen moved to adjourn the meeting; Mr. Andrew Godfrey seconded. The motion passed unanimously by all board members present with a 5 - 0 vote.

Chairperson Baltzer adjourned the meeting at 12:10 p.m.

Respectfully submitted by:



Dr. Dale Woods
Environmental Program Manager I
Fertilizing Materials Inspection Program

9/17/2015

Date

FERTILIZER INSPECTION ADVISORY BOARD

FINANCIAL SUMMARY
Commercial Fertilizing Inspection Program
&
Organic Input Materials Program

FUND CONDITION REPORT
As of October 31, 2015

	FY 2015/16		
	COMMERCIAL FERTILIZER	OIM	COMBINED TOTAL
Beginning Balance as of 7/1/2015:			
CDFA Account	\$ 1,238,710	\$ (332,486)	\$ 906,224
Bank of America Account	\$ 4,075,692	-	\$ 4,075,692
Total Funds	\$ 5,314,402	\$ (332,486)	\$ 4,981,916
<hr/>			
Revenue*	\$ 3,236,484	\$ 363,561	\$ 3,600,045
Expenditures and Encumbrances			
Expenditures**	\$ 1,449,435	\$ 169,175	\$ 1,618,610
Encumbrances	\$ 506,929	\$ 47,312	\$ 554,241
<hr/>			
Ending Balance as of 10/31/15:			
CDFA Account	\$ 1,065,462	\$ (138,100)	\$ 927,362
Bank of America Account***	\$ 6,035,989	-	\$ 6,035,989
Total Funds	\$ 7,101,451	\$ (138,100)	\$ 6,963,351
Adjusted Balance****	\$ 6,594,522	\$ (185,412)	\$ 6,409,110

* Revenue includes fertilizing material licenses, fertilizer product registration, fertilizing materials mill assessments, and interest accrued.

** Expenditure total per CDFA Financial Services Budget Report October 31, 2015. Amount does not reflect outstanding lag expenditures.

***Transfer pending for fertilizing materials mill assessment to OIM and FREP. Balance will decrease by \$741,107 (OIM; \$181,851 and FREP; \$599,256).

**** Adjusted balance accounts for all program encumbrances through October 31, 2015.

FERTILIZER INSPECTION ADVISORY BOARD

FINANCIAL SUMMARY

Fertilizer Research and Education Program

FUND CONDITION REPORT

As of October 31, 2015

	<u>FY 2015/16</u>
Beginning Balance as of 07/01/15:	
CDFA Account	\$ 2,082,611
Bank of America Account	\$ 907,601
Total Funds	\$ 2,990,212
<hr/>	
Revenue *	\$ 1,272,136
Expenditures and Encumbrances	
Expenditures**	\$ 825,831
YTD Research Contract Encumbrances	
FY 13/14	\$ 235,164
FY 14/15	\$ 495,041
FY 15/16	\$ 1,366,102
FY 16/17	\$ 847,677
FY 17/18	\$ 419,813
	\$ 2,096,307
<hr/>	
Ending Balance as of 10/31/2015	
CDFA Account	\$ 2,003,858
Bank of America Account***	\$ 1,432,659
Total Funds	\$ 3,436,517
<hr/>	
Adjusted Balance****	\$ 1,340,210

* Revenue: fertilizer materials mill assessments and interest accrued in the CDFA Fund Account, and Bank of America Corporate Account.

** Expenditure: total per CDFA Financial Services Budget Report October 31, 2015. Amount does not reflect outstanding lag expenditures.

*** Pending transfer will increase balance by \$599,256.

**** Adjusted balance accounts for all program encumbrances through June 30, 2016

California Department of Food and Agriculture
 Fertilizing Materials Registration and Inspection Program

Mill Assessment Trends

	2012/13	2013/14	2014/15	2015/16
	1.5 mill	2 mill	2 mill*/ 3 mill**	3 mill
July	\$ 499,593	\$ 571,280	\$ 1,416,448	\$ 1,485,759
August	\$ 619,588	\$ 1,091,065	\$ 541,196	\$ 1,260,241
September	\$ 511	\$ 16,276	\$ 11,198	\$ 175,100
October	\$ 349,885	\$ 510,158	\$ 889,464	\$ 751,077
November	\$ 301,512	\$ 533,733	\$ 234,832	
December	\$ 3,310	\$ 620,250	\$ 36,795	
January	\$ 350,963	\$ 601,502	\$ 584,271	
February	\$ 248,840	\$ 375,509	\$ 862,155	
March	\$ 6,622	\$ 14,158	\$ 24,547	
April	\$ 984,512	\$ 932,019	\$ 1,391,088	
May	\$ 537,329	\$ 301,170	\$ 568,729	
June	\$ 20,477	\$ 45,695	\$ 135,193	
	\$ 3,923,142	\$ 5,612,815	\$ 6,695,916	\$ 3,672,177

* July - December 2014 mill at .002

** January - June 2015 mill at .003



Organic Input Material Inspections, Sampling, and Administrative Penalties



Organic Input Material Inspections

Through November 2015

- 214 completed by CDFA in **CA, OR, NV, and AZ**
- 224 total locations required
 - An additional 30 OIM firms were not inspected due to non-operation.
- 96% complete



Organic Input Material Inspections

- 43 out-of-state reports received by Ecocert
*Note: More inspections have been completed.
CDFA does not record completion until receipt of final report. The reporting process is delayed as reports are first submitted through Ecocert.*



Organic Input Material Inspections

- Total locations for CA, OR, NV & AZ increased ~10% over 2014
- The first full year of OIM inspections (2012) had 134 inspections versus 224 this year.



Fertilizer Sampling

- Total Samples for 2015: 1080*
- Conventional Samples: 549
- OIM: 416
- Investigative: 115

*Note: Data not yet complete for 2015



Fertilizer Sampling

- Violation Rate (Conventional): 20%*
- Violation Rate (OIM): 19%

*Note: Data not yet complete for 2015



2015 Administrative Penalty Cases

Total Penalties Collected: \$112,297.84

Note: 7 cases still pending; 2 in default

Total Penalties Pending: \$87,675.57

Total Penalties in Default: \$14,799.49



Administrative Penalty Cases *Paid – Slide 1 of 2*

\$47,629.37 – *OIM - Adulteration/Misbranding/Registration*

\$10,852.11 – *OIM - Adulteration/Misbranding/Registration*

\$3,526.23 – *Adulteration/Misbranding/Registration*

\$3,591.63 – *OIM - Misbranding/Registration*

\$10,032.81 – *Paid 4 of 5 installments -
Misbranding/Registration*



Administrative Penalty Cases

Paid – Slide 2 of 2

\$3,983.14 – *Misbranding/Registration*
\$17,246.68 – *OIM - Misbranding/Registration*
\$6,566.32 – *OIM - Adulteration/Misbranding/
Mill Assessments/Tonnage Reporting*
\$8,869.55 (half of original penalty) – *OIM -
Misbranding/Registration*



Administrative Penalty Cases

New & Pending – Slide 1 of 2

\$26,911.36 – *OIM - Adulteration/Misbranding*
\$12,060.39 – *OIM & Conventional - Adulteration/
Misbranding*
\$9,734.66 – *OIM - Misbranding/Registration*
\$29,457.11 – *Adulteration/Misbranding/Mill Assessments/
Access to Records*



Administrative Penalty Cases

New & Pending – Slide 2 of 2

\$2,113.26 – *Misbranding/Registration*
\$1,500.31 – *Registration/Mill Assessments/Tonnage Reporting*
\$5,898.48 – *OIM - Misbranding/Registration*



Administrative Penalty Cases

In Default

\$5,929.99 – *Misbranding/Registration*
\$8,869.50 (half of original penalty) – *OIM -
Misbranding/Registration*

Fertilizer Registration Update January 14, 2016

Luz Roa

Program Updates

- ▶ OIM Program/ISO 17065
- ▶ Fertilizer Workshop Oct 7 & 8
- ▶ Label Reviews
- ▶ Registration Renewals
- ▶ Heavy metals statement
- ▶ New Staff

OIM Program & ISO 17065

- ▶ NOSB meeting – October 2015
- ▶ NOP recognition
- ▶ Follow up audits – USDA AMS



2015 Fertilizer Workshop

Venue



Introduction



2015 Fertilizer Workshop

Staff Introductions

Break-out session
Conventional



2015 Fertilizer Workshop

Break-out session
Database

Break-out session
OIM



2015 Fertilizer Workshop



Registration Applications

▶ Conventional	<u>Jan</u>	<u>Aug</u>	<u>Dec</u>
▶ Approved –	6,759	7,754	8,006
▶ Pending review –	150	84	146
▶ OIM	<u>Jan</u>	<u>Aug</u>	<u>Dec</u>
▶ Approved –	1,176	1,447	1,544
▶ Pending review –	78	41	68
▶ Total Approved Labels –	<u>9,550</u>		

OIM Registration Renewals

- ▶ Oct 2015 – OIM renewal notification via email
- ▶ Nov & Dec 2015 – submissions accepted for OIM
 - ▶ 150 submitted as of December 28, 2016
- ▶ OIM Approved List
 - ▶ Will be updated in March/April 2016



Heavy Metals statement

- ▶ If heavy metals statement listing www.aapfco.org/metals.htm and **not required** by California Code of Regulations:
 - ▶ → accepted if appears on OR,WA site
 - ▶ → accepted if letter of intent to post on OR,WA site provided
 - ▶ → delete if no posting by OR,WA



New Additions

- ▶ Marja Koivunen
Senior Environmental Scientist (Specialist)

- ▶ Shari Lo Grossman
Environmental Scientist

- ▶ Lisa Montanez
Environmental Scientist

FREP Updates



January 14, 2016



Barzin Moradi



Outline:

- Strategic Planning (>5-year)
- Central Coast Initiative
- Research Priorities (2016 cycle)
- Summary of Current Projects



Strategic Planning (>5-year)

General Goals

“Fostering improvements in the agronomic and environmental performance of fertilizing materials”

- Positioning FREP as the primary source of information on nutrient management
- Bringing research into practice
- Identifying and addressing knowledge gaps





Central Coast Initiative

Issue:

- Many best management practices (BMPs) are already available that can save money, time and improve environmental outcomes, however, many of these practices have not been widely adopted
- Nitrogen reporting data indicate that there is room for improving nitrogen management.
- Some of the economic drivers in this region that can make it difficult to change practices
 - High land value
 - Pressure to increase production without compromising quality
 - Pressure to increase rotations or intensify production
 - Significant cost to grower if crop is lost (economic and social)
- There may still be other drivers that need to be studied



Central Coast Initiative

Objectives:

- Current state of the industry and BMP adoption
- Identify what informs grower's fertilization decisions
- Indicate barriers to implementation of better management practices and how to overcome those barriers
- What outreach and education is already occurring in the region
- How can we facilitate better BMP adoption
- Answering these questions will require outreach to key stakeholders in the region
- FREP staff will reach out to agricultural and community experts, commodity groups, local agencies, shippers, packers, consultants, environmental groups etc.

2016 Regular RFP Priority Areas



1. IMPROVING INPUT MANAGEMENT:

- Developing Integrated Decision Support Tools
- Education and Outreach (*Technical Education*)
- Promoting Adoption of Best Management Practices (BMPs) or Developing New BMPs
- Addressing barriers to Adoption of Management Practices

2. UNDERSTANDING SOIL-PLANT PROCESSES:

- Filling Knowledge Gaps for Nitrogen Management in Specific Crops
- The Role of Soil Organic Matter and Organic Fertilizing Materials on Nutrient Management

3. LOSS PATHWAYS:

- Understanding and Quantification of Nitrate Movement in Deep Soil in Relation to Management Practices
- Development of Easy-to-Use Technologies for Field-Scale Management of Water and Nitrate Leaching
- Nitrous Oxide

Agreement #	Project Leader	Primary Investigator	Project Description	Contract Start Date	Contract End Date	12/13	13/14	14/15	15/16	16/17	17/18	18/19	Grant/Contract Balance	Grant/Contract Fund Amount
On-going Projects														
10-0013-SA	Cahn	U.C.C.E	<i>Irrigation and Nitrogen Management Web-based Software for Lettuce Production</i>	1/11/2011	6/30/2016	0.00	0.00	56,236.97	47,128.00	-			103,364.97	255,122.00
11-0301-SA	Harter	UC Davis	<i>Nitrogen Fertilizer Loading to Groundwater in the Central Valley</i>	1/1/2012	6/30/2015	0.00	0.00	12,622.35	-	-			12,622.35	150,000.00
11-0453-SA	Sanchez	Unv. Arizona	<i>Exploring the Potential for Using Transgenic Crops for Improved Fertilizer Use Efficiency</i>	1/1/2012	7/31/2015	0.00	0.00	24,178.00	-	-			24,178.00	149,178.00
11-0461-SA	Brown	UC Davis	<i>Determination of Root Distribution, Dynamics, Phenology and Physiology of Almonds to Optimize Fertilization</i>	1/1/2012	1/31/2015	0.00	10,342.52	23,816.00	-	-			34,158.52	148,816.00
11-0485-SA	Horwath	UC Davis	<i>Assessment of Plant Fertility and Fertilizer Requirements for Agricultural Crops in California</i>	4/1/2012	9/15/2015	0.00	0.00	13,328.69	-	-			13,328.69	230,453.00
12-0362-SA	Smith & Cahn	UCCE	<i>Evaluation of N Uptake and Water Use of Leafy Greens Grown in High-Density 80-inch Bed Plantings and Demonstration of Best Management Practices</i>	1/1/2013	1/31/2016	0.00	0.00	0.00	28,634.00	-			28,634.00	153,634.00
12-0384-SA	Horwath, Burger & Mitchell	UC Davis UCCE	<i>Evaluation of a 24 Hour Soil CO2 Test for Estimating Potential N-Mineralization to Reassess Fertilizer N Recommendations</i>	1/1/2013	1/31/2016	0.00	0.00	0.00	24,971.00	-			24,971.00	149,971.00
12-0385-SA	Putnam & Pettygrove	UC Davis	<i>Characterizing N Fertilizer Requirements of Crops Following Alfalfa</i>	1/1/2013	1/31/2016	0.00	865.00	50,000.00	24,983.00	-			75,848.00	149,983.00
12-0386-SA	Sanchez, Andrade & Nolte	Unv. Arizona	<i>Development of Economically Variable Rate P Application Protocols for Desert Vegetable Production Systems</i>	1/1/2013	1/31/2016	0.00	0.00	25,000.00	15,632.00	-			40,632.00	140,632.00
12-0387-SA (09-0583)	Ayars & Phene	USDA	<i>Improving Pomegranate Fertigation and Nitrogen Use Efficiency with Drip Irrigation Systems</i>	1/1/2013	1/31/2016	0.00	0.00	345.07	50,000.00	-			50,345.07	180,000.00
12-0391-SA	Pinel	WPHA	<i>Developing Fertilizer Best Management Guides from FREP Research</i>	1/1/2013	1/31/2016	0.00	16,400.00	16,400.00	8,200.00	-			41,000.00	49,200.00
12-0392-SA	Pinel Smart, Hopmans, Brown &	WPHA	<i>Improving Nitrogen Fertilizer Management in California</i>	1/1/2013	1/31/2016	0.00	50,000.00	50,000.00	12,500.00	-			112,500.00	137,500.00
12-0454-SA		UC Davis	<i>Optimizing the Use of Groundwater Nitrogen for Nut Crops</i>	1/1/2013	12/31/2015	0.00	0.00	30,714.92	79,692.00	-			110,406.92	472,730.00
12-0455-SA	Cahn, Smith & Hartz	UCCE	<i>Determining the Fertilizer Value of Ambient Nitrogen in Irrigation Water</i>	1/1/2013	12/31/2015	0.00	0.00	0.00	43,205.50	-			43,205.50	280,536.00
13-0145	Stark	CAPCA	<i>Provide Nitrogen Management Training Program for CDFA</i>	11/1/2013	6/30/2016	-	3,141.65	12,375.00	-	-			15,516.65	24,750.00
13-0241-SA	Parker, Brown, Hartz et al.	UC ANR	<i>Nitrogen Management Training for Certified Crop Advisors</i>	8/1/2013	6/30/2016	-	154,415.06	63,456.00	30,917.00	-			248,788.06	359,616.00
13-0267-SA	Hutmacher Orloff Wright	UC ANR	<i>Developing Nitrogen Management Strategies to Optimize Grain Yield and Protein Content While Minimizing Leaching Losses in California Wheat</i>	1/1/2014	12/31/2016	-	0.00	64,643.21	75,000.00	41,750.00			181,393.21	225,000.00
13-0268-SA	Smith Cahn Hartz	UC ANR	<i>Improving N Use Efficiency of Cool Season Vegetable Production Systems with Broccoli Rotations</i>	1/1/2014	12/31/2016	-	0.00	0.00	14,086.50	14,052.00			28,138.50	175,658.00

14-0452-SA	O'Geen Hopmans	UC ANR	<i>A Data Driven Nitrate Leaching Hazard Index and BMP Assessment Tool</i>	1/1/2015	12/31/2017		45.00	74,888.53	74,816.69	37,367.00		187,117.22	224,511.05	
14-0481-SA	Culbertson DeRohan	CA Foundation for Ag in the Classroom	<i>Plant Nutrients in the Classroom</i>	1/1/2015	12/31/2017		27,718.47	52,376.87	43,152.33	18,493.95		141,741.62	141,741.62	
14-0508-SA	Sanchez Smith	Unv. of Arizona UC ANR	<i>Field Evaluation and Demonstration of Controlled Release N Fertilizers in the Western United States</i>	1/1/2015	12/31/2017		37,489.60	74,969.99	74,993.62	37,513.24		224,966.45	224,966.45	
14-0555-SA (11-0470)	Putnam Stark	UC ANR CAPCA	<i>CA CCA FREP Educational/Outreach Program</i>	1/1/2015	12/31/2017		0.00	46,643.50	42,205.00	19,976.50		108,825.00	134,999.00	
14-0585-SA	Prichard	UC ANR	<i>Development of Management Training Curriculum for Use in Grower Training for Self-Certification of Regional Water Board Nitrogen Management Plans</i>	4/15/2015	10/31/2015		0.00	0.00				0.00	35,052.27	
15-0231-SA	Geisseler Horwath	UC ANR	<i>Online Fertilization Guidelines for Agricultural Crops in California</i>	7/1/2015	6/30/2017			74,220.74	74,782.60			149,003.34	149,003.34	
15-0356-SA	Haffa Post Horwath	California State Monterey Bay	<i>Quantifying N2O Emissions under Different On-farm Irrigation and Nutrient Management BMPs that Reduce Groundwater Nitrate Loading and Applied Water</i>	7/1/2015	6/30/2018			94,377.00	81,808.00	93,815.00		270,000.00	270,000.00	
15-0360-SA	Klassen Fulton	CURES	<i>Evaluation of the Multiple Benefits of Nitrogen Management Practices in Walnuts</i>	7/1/2015	6/30/2018			109,381.20	81,362.30	34,250.40		224,993.90	224,994.00	
15-0392-SA	Klassen Prichard	CURES	<i>Train the Trainer: A Nitrogen Management Training Program for Growers</i>	7/1/2015	6/30/2018			71,212.00	40,455.00	27,901.00		139,568.00	139,568.00	
15-0393-SA	Burt	Cal Poly SLO	<i>New Fertigation Book</i>	7/1/2015	6/30/2017			101,662.00	122,815.00			224,477.00	224,477.00	
15-0410-SA	Geisseler	UC ANR	<i>Developing a decision support tool for processing tomato irrigation and fertilization in the Central Valley based on CropManage</i>	7/1/2015	6/30/2018			74,888.65	74,907.98	74,920.06		224,716.69	224,716.00	
?	Ludwig Brown Sanden	Almond Board	<i>2015 Demonstration of a combined new leaf sampling technique for nitrogen analysis and nitrogen applications approach in almonds</i>	7/1/2015	6/30/2018			99,644.00	80,576.00	75,576.00		255,796.00	255,796.00	
Available Funds								\$1,000,000	\$1,457,139	\$1,500,000	\$2,000,000	\$2,000,000	\$2,000,000	
Total Contract Amount								\$1,108,548	\$1,422,198	\$1,216,842	\$1,387,886	\$847,677	\$419,813	
Invoices Paid								\$1,108,548	\$1,187,034	\$708,473	\$58,673	\$0	\$0	
YTD Encumbered Funds								\$0	\$235,164	\$508,369	\$1,329,213	\$847,677	\$419,813	\$3,340,237

**Center for Analytical Chemistry
Fertilizer Laboratory
Samples Received January 1 to October 31, 2015**

Fertilizer Samples

Total Number of Samples Received	1,069
Routine Samples	1,016
Priority Samples	10
Partial Rush Samples	18
Rush Samples	25
Total Number of Samples Completed	1,069
Total Number of Assays Requested	5,149
Routine Assays	5,001
Rush Assays	148
Average Number of Assays Requested per Sample	4.82

FERTILIZER SAMPLES JANUARY - OCTOBER 2015

Agenda Item 9B

No.	Fertilizer N, P2O5, K2O	Method	Routine		Rush		Totals
			Assay 1	Assay 2	Assay 1	Assay 2	
1	Nitrogen - Total	Combustion	727	119	40	6	892
2	Phosphorus - Available	Wet Chemistry	554	85	24	10	673
3	Potassium - Soluble	AA	643	64	22	5	734
4	Ammoniacal Nitrogen	Kjeldahl	57	6	1	0	64
5	Nitrate Nitrogen	Wet Chemistry	44	4	1	0	49
6	Phosphorus - Total	Wet Chemistry	6	2	0	0	8
7	Urea	Wet Chemistry	74	2	5	0	81
8	Water Insoluble Nitrogen	Kjeldahl	81	0	4	0	85
Miscellaneous							
9	CCE	Wet Chemistry	16	1	0	0	17
10	Density	Wet Chemistry	1	0	0	0	1
11	Free Water	Oven	60	0	0	0	60
12	Gypsum Equivalent	Calculation	60	10	0	0	70
13	Humic Acid	Wet Chemistry	127	72	7	1	207
14	Microscopy	Microscope	2	0	0	0	2
15	Moisture	Oven	46	0	2	0	48
16	Pesticide Screen	GC/MS and LC/MS	0	0	0	0	0
17	pH	pH Meter	63	1	18	0	82
18	Salinity	Wet Chemistry	6	0	0	0	6
19	Vitamin B1	LC	1	0	0	0	1
Minerals							
20	Arsenic	AA	310	3	6	0	319
21	Cadmium	AA	310	2	6	0	318
22	Lead	AA	310	2	6	0	318
23	Boron	ICP	90	34	0	0	124
24	Calcium	ICP	291	12	0	0	303
25	Chloride	Wet Chemistry	28	2	0	0	30
26	Cobalt	ICP	17	13	0	0	30
27	Copper	ICP	76	13	0	0	89
28	Iron	ICP	185	18	0	0	203
29	Magnesium	ICP	137	8	0	0	145
30	Manganese	ICP	120	15	0	0	135
31	Molybdenum	ICP	61	26	6	6	99
32	Nickel	ICP	0	0	0	0	0
33	Selenium	ICP	0	0	0	0	0
34	Sodium	ICP	15	0	0	0	15
35	Zinc	ICP	156	15	0	0	171
Plant Growth Regulators							
36	6-Benzylaminopurine	LC/MS	3	0	0	0	3
37	Chlormequat Chloride	LC/MS	3	0	0	0	3
38	Daminozide	LC/MS	3	0	0	0	3
39	Ethephon	LC/MS	3	0	0	0	3
40	Forchlorfenuron	LC/MS	3	0	0	0	3
41	Mepiquat Chloride	LC/MS	3	0	0	0	3
42	Paclobutrazol	LC/MS	3	0	0	0	3
43	Prohexadione	LC/MS	3	0	0	0	3
44	Uniconazole	LC/MS	3	0	0	0	3

**FERTILIZER SAMPLES
JANUARY - OCTOBER 2015**

Agenda Item 9B

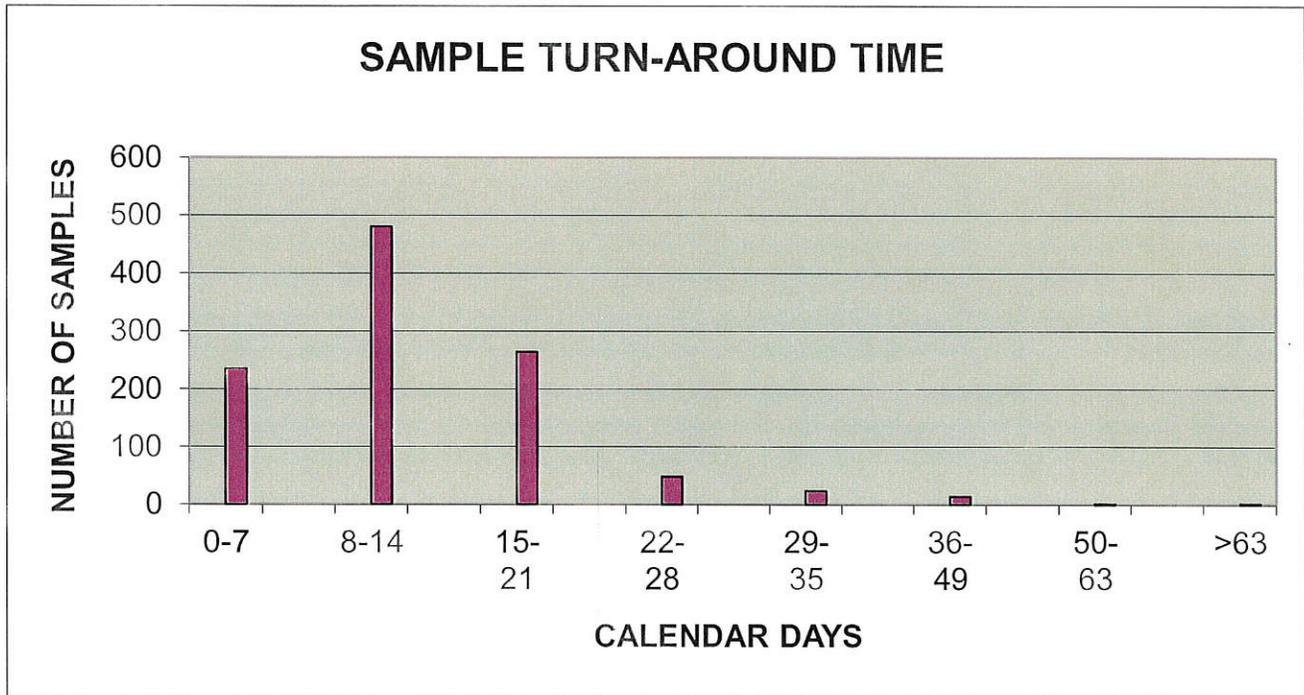
Sulfur							
45	Sulfur - Elemental	Wet Chemistry	3	0	0	0	3
46	Sulfur - Sulfate	Wet Chemistry	81	10	0	0	91
47	Sulfur - Total	Wet Chemistry	216	44	0	0	260
	Fertilizer		Routine		Rush		Total
	Assays		Assay 1	Assay 2	Assay 1	Assay 2	
	Total		5001	583	148	28	5760

Turn-Around Time for Fertilizer Samples Samples Received January - October 2015

Summary

Total Samples Received - 1,069

Total Samples Completed - 1,069



Calendar Days	# of Samples	% of Total	Cumulative Total
0-7	235	22.0%	
8-14	481	45.0%	67.0%
15-21	264	24.7%	91.7%
22-28	48	4.5%	96.2%
29-35	24	2.2%	98.4%
36-49	14	1.3%	99.7%
50-63	1	0.1%	99.8%
<u>>63</u>	<u>2</u>	<u>0.2%</u>	<u>100.0%</u>
Total	1,069	100.0%	